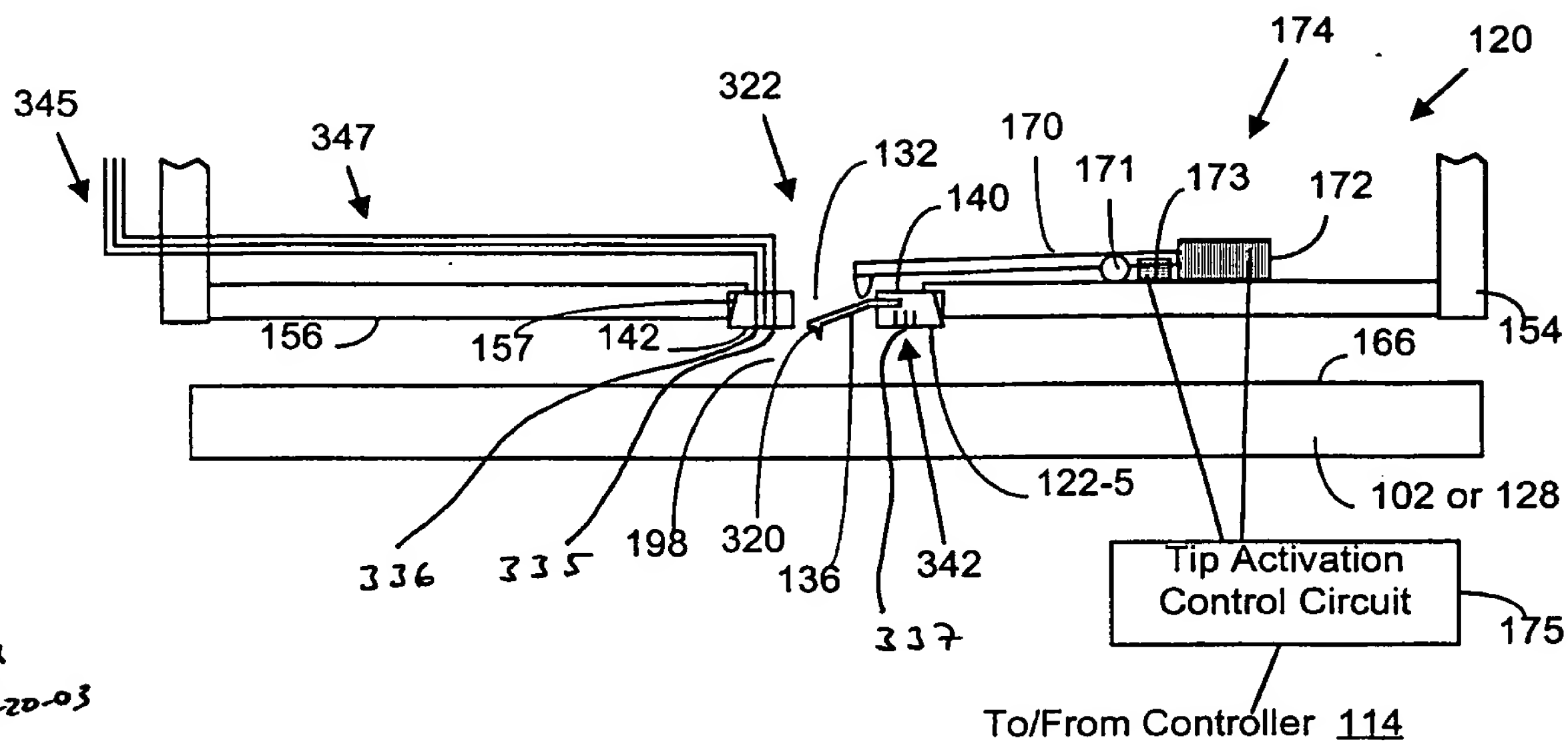


20/58



approved
 cmk 3-20-03

Figure 35

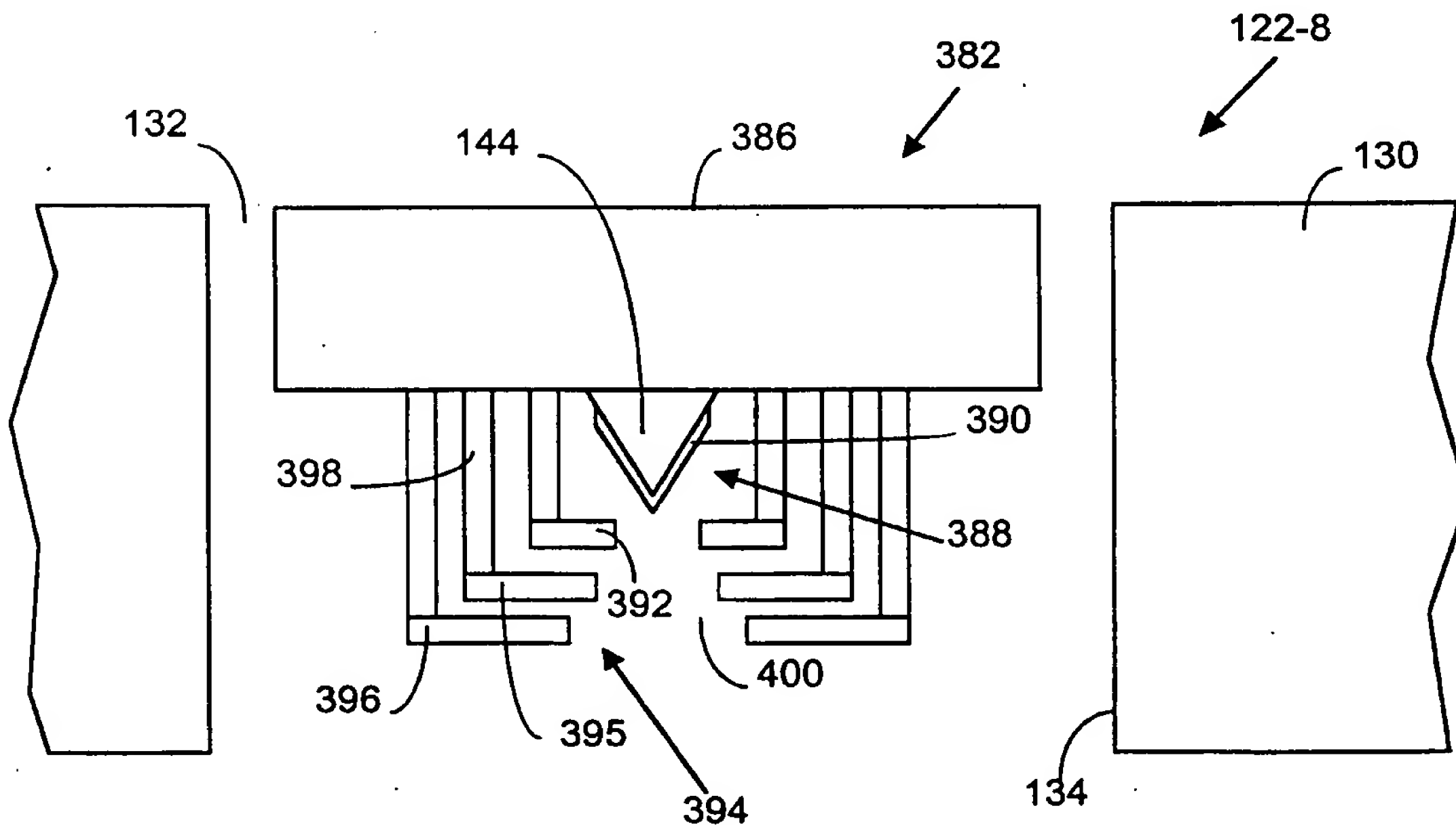
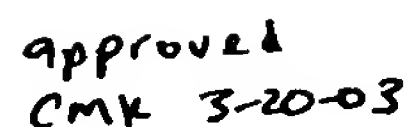


Figure 41



The schematic diagram illustrates a vacuum arc chamber 120. It features a main horizontal body 102 or 128 with a top flange 154 and a bottom flange 166. A central assembly 132 is mounted on the top flange, including a cathode 140 and a central electrode 142. A vacuum arc control circuit 496 is connected to the cathode 140 via a cable 342. A pumping control circuit 144 is connected to the central electrode 142 via a cable 347. A cable 345 is also connected to the top flange 154. A cable 122-12 connects the central assembly 132 to a To/From Controller 114. A cable 198 connects the central electrode 142 to the controller 114. A cable 156 connects the top flange 154 to the controller 114. A cable 157 connects the bottom flange 166 to the controller 114. A cable 166 connects the bottom flange 166 to the controller 114. A cable 123 connects the controller 114 to the chamber 120.

Figure 55



WO 98/34092

PCT/US98/01528

36/58

122-14 or 15

130

164

500 or 501

~~500, 501, or 502~~

132

466

463 or 464

~~463, 464, or 465~~

134

502

496

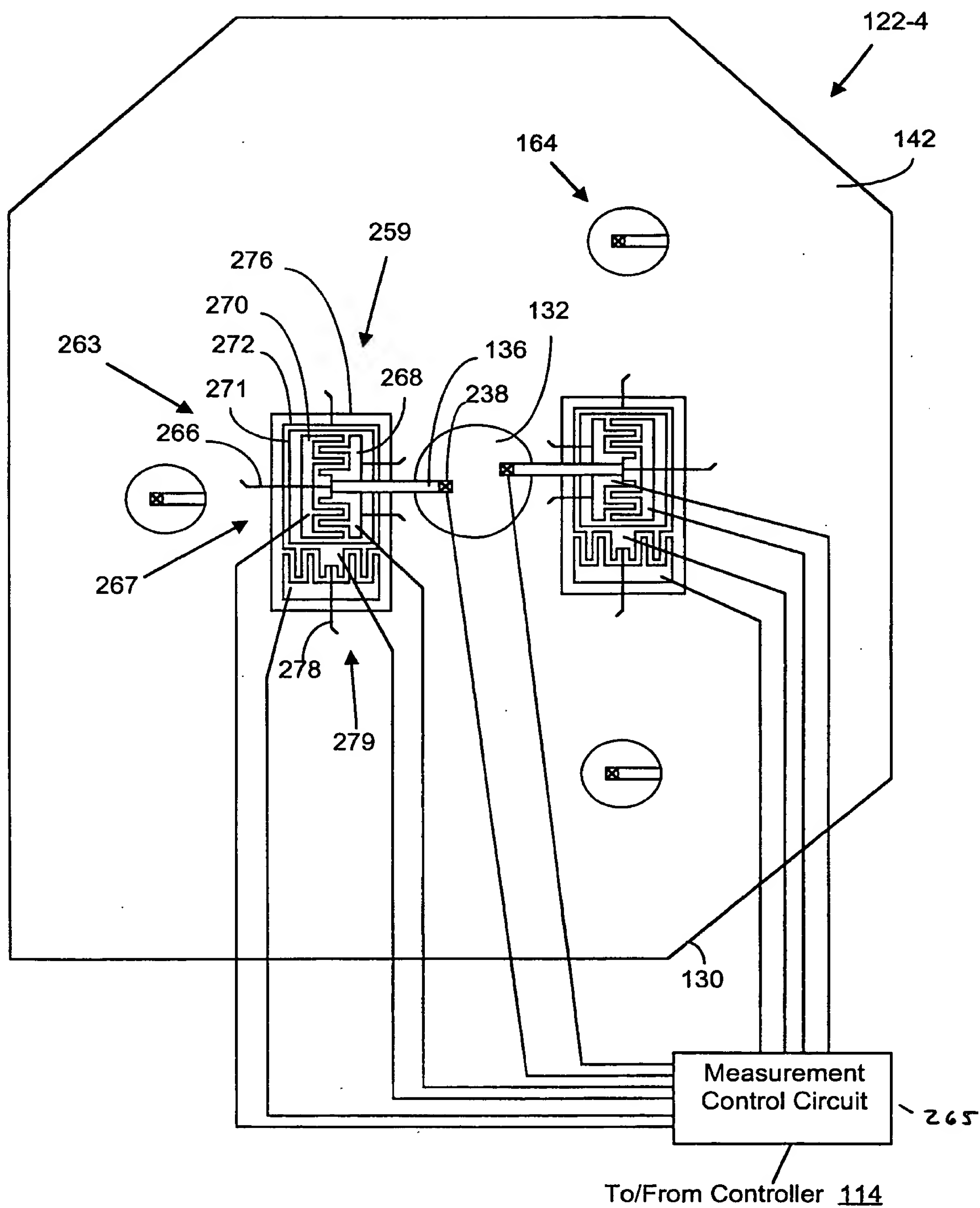
Energy Measurement
Circuit

To/From Controller 114

approved
CMK 3-20-03

Figure 58

16/58



approved
cmk-3-20-03

Figure 26

SUBSTITUTE SHEET (RULE 26)

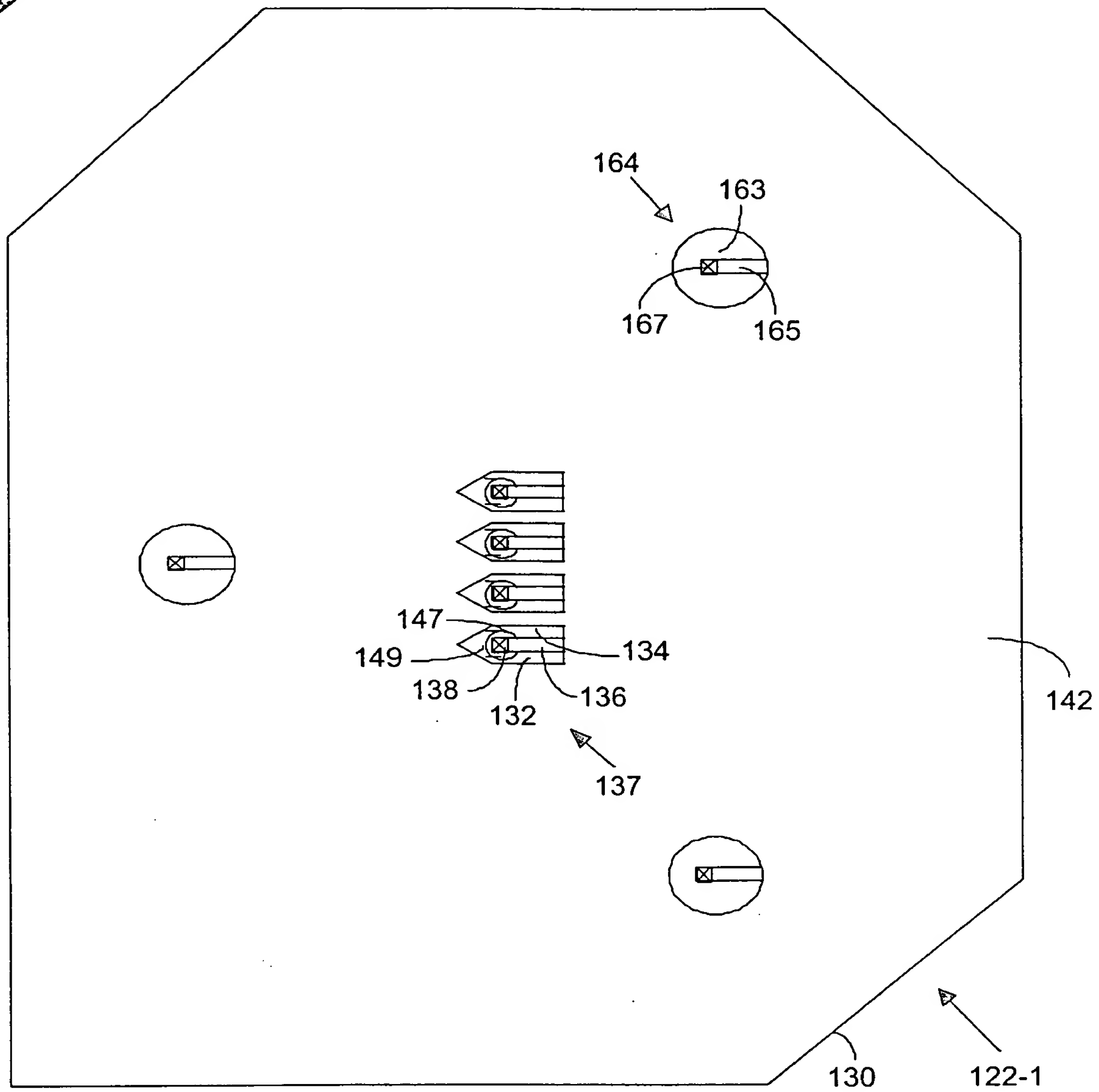


Figure 2

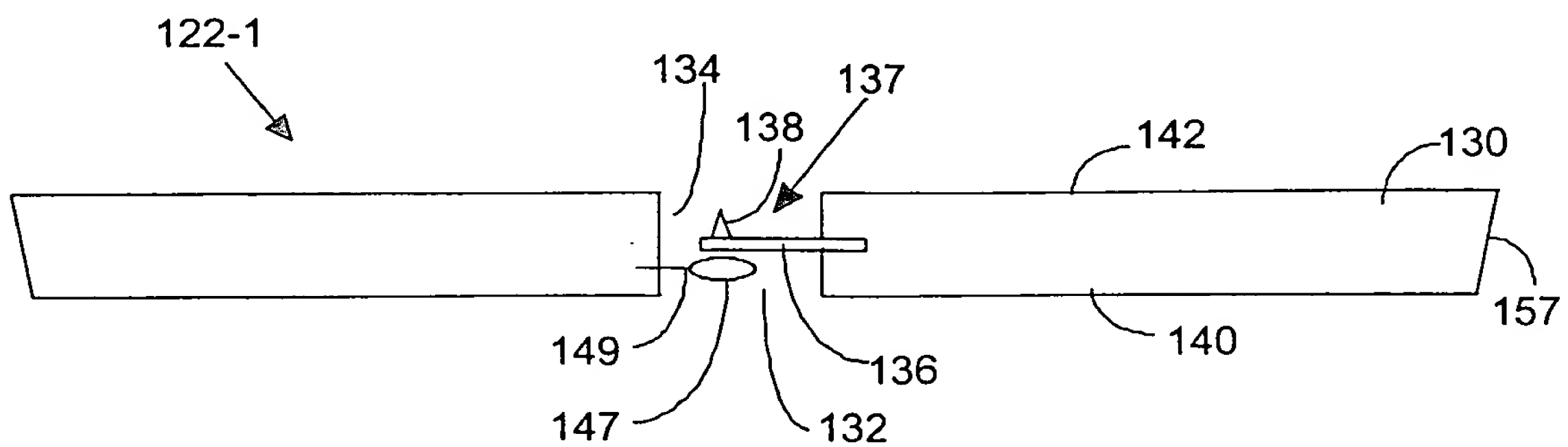


Figure 3

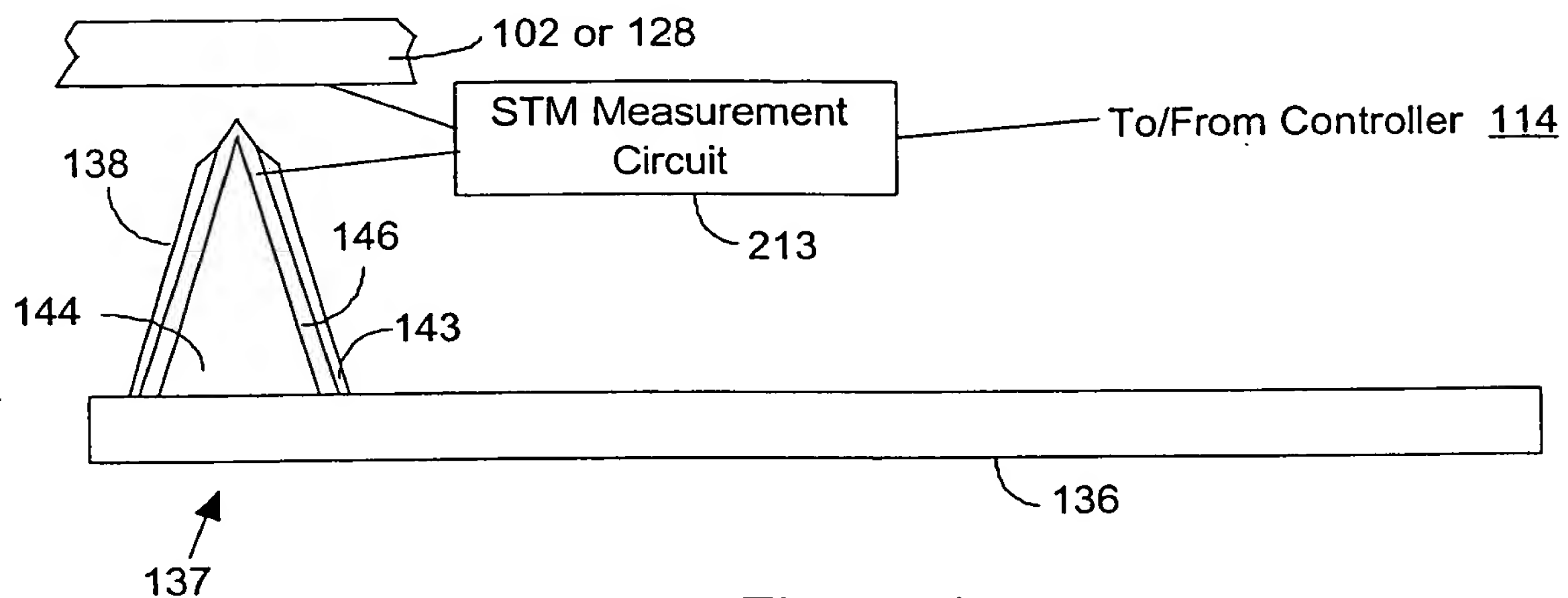


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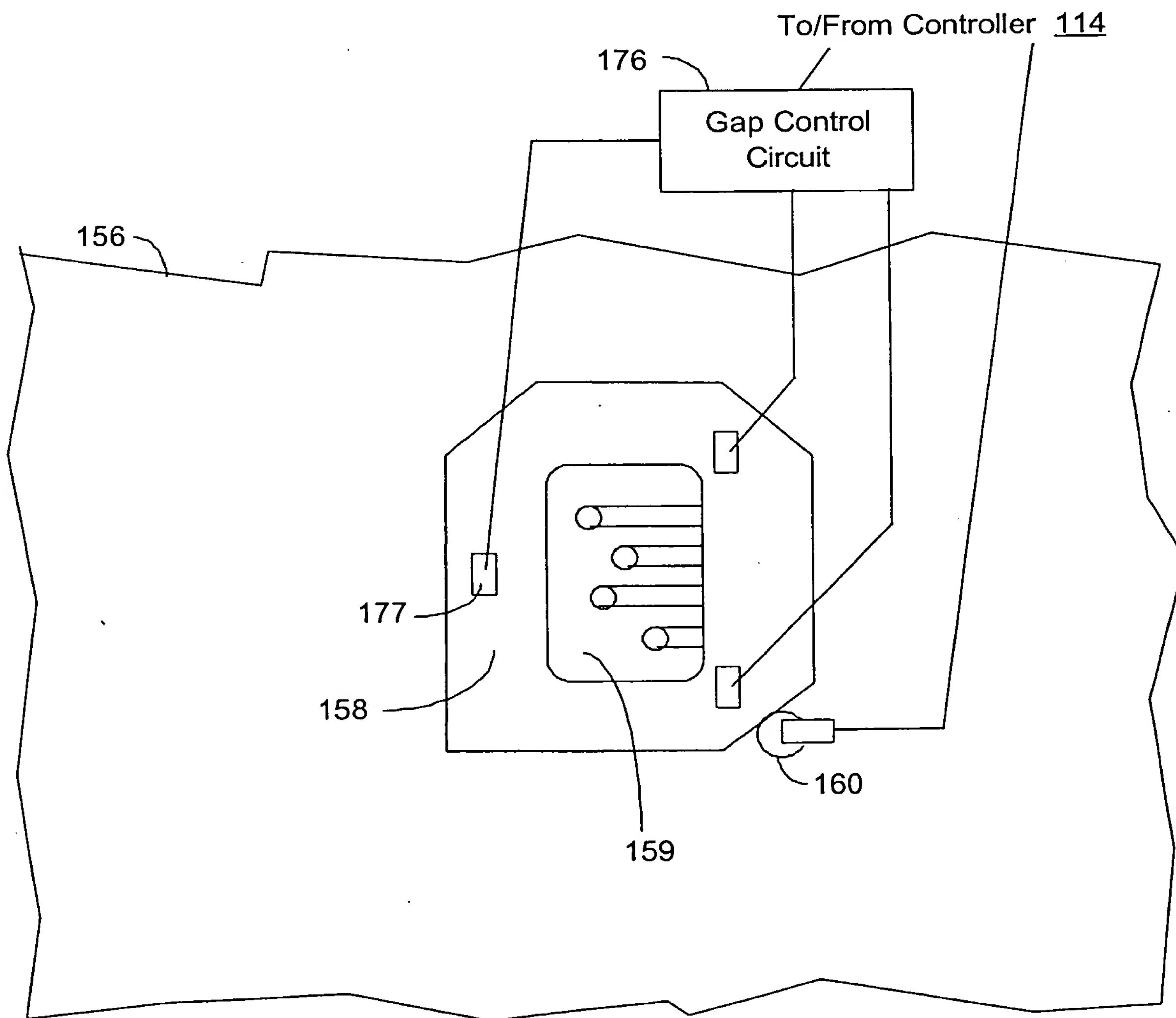
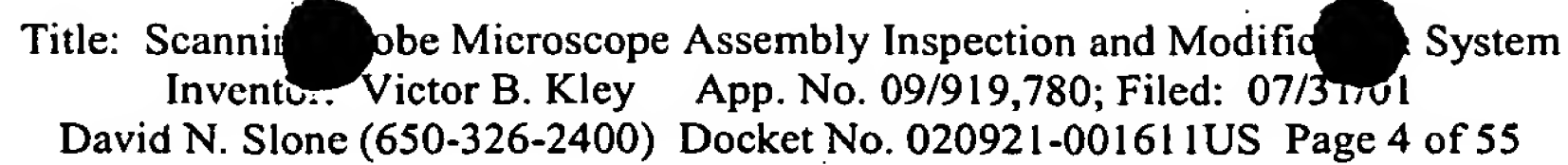


Figure 6



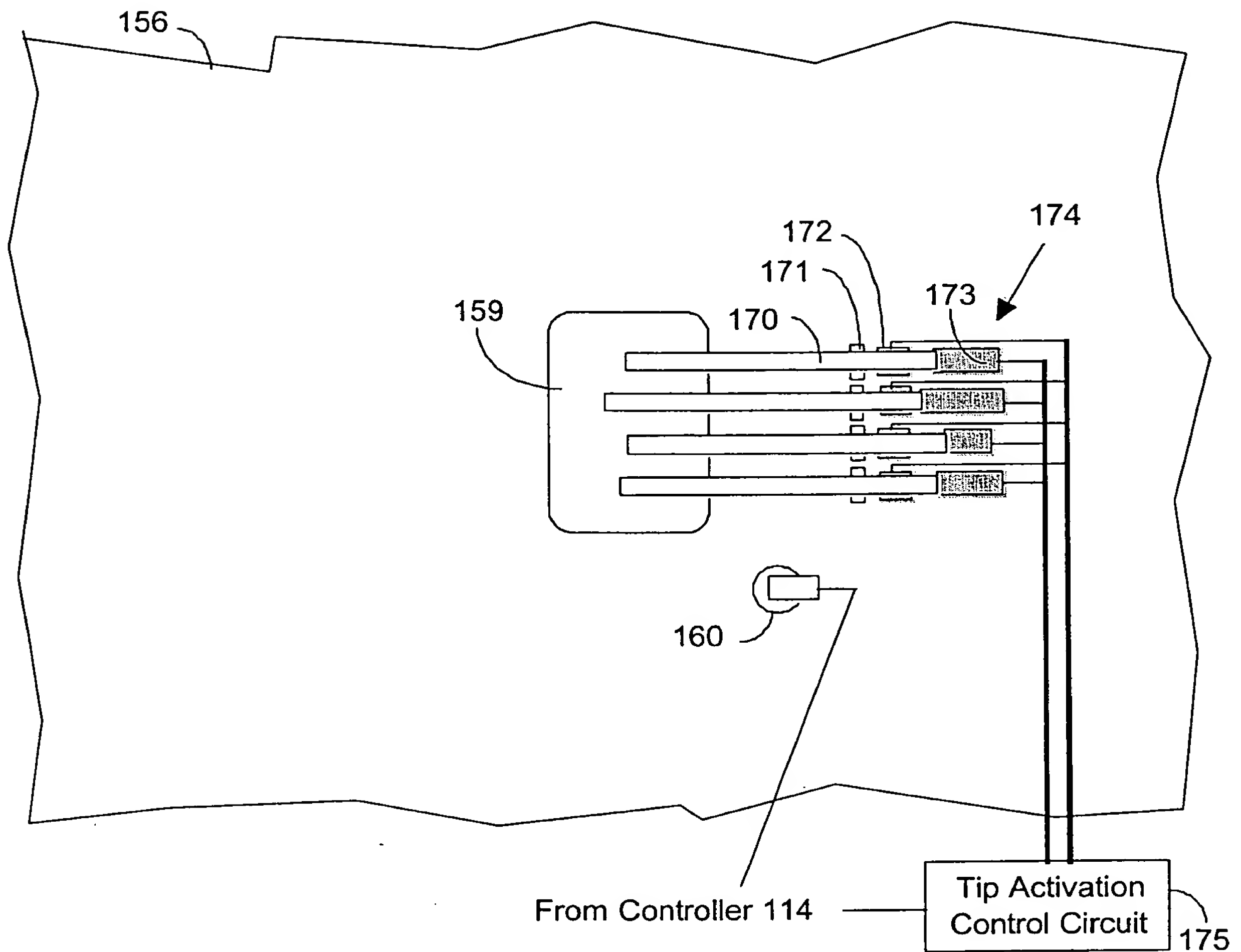


Figure 7

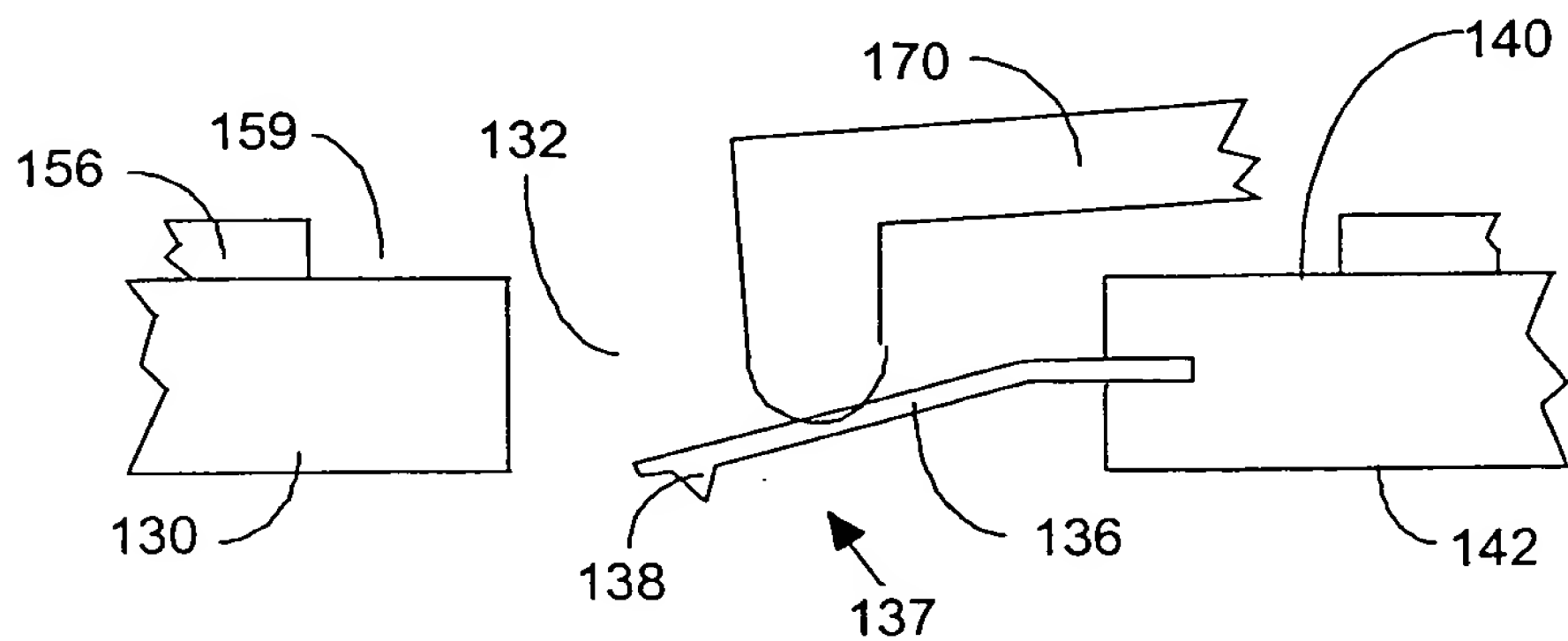
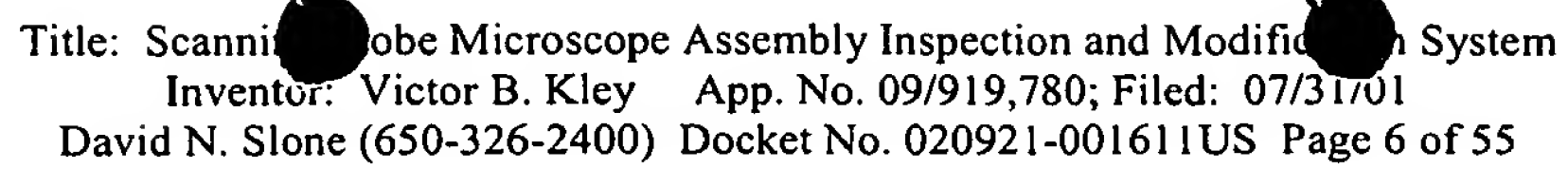


Figure 8



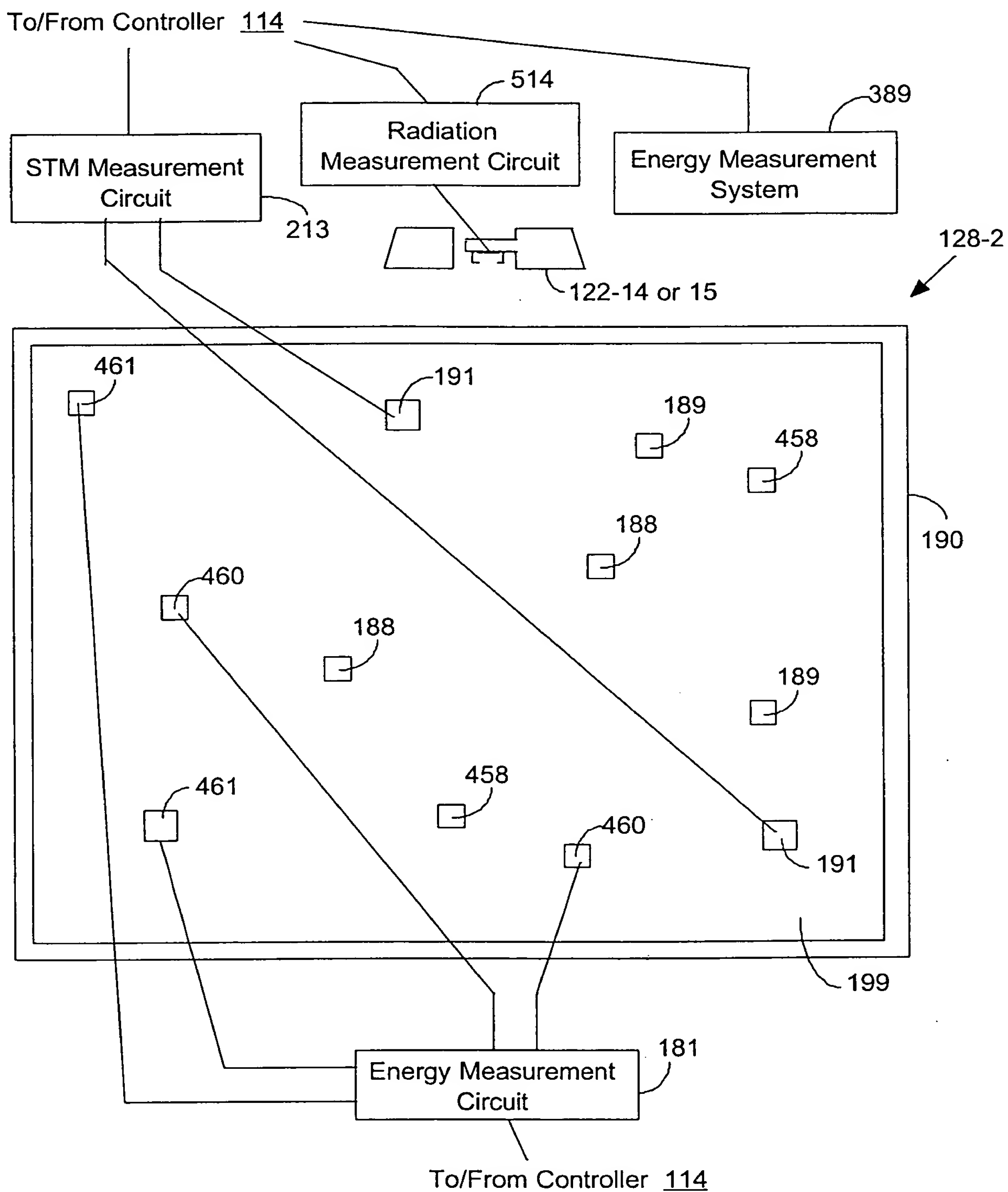
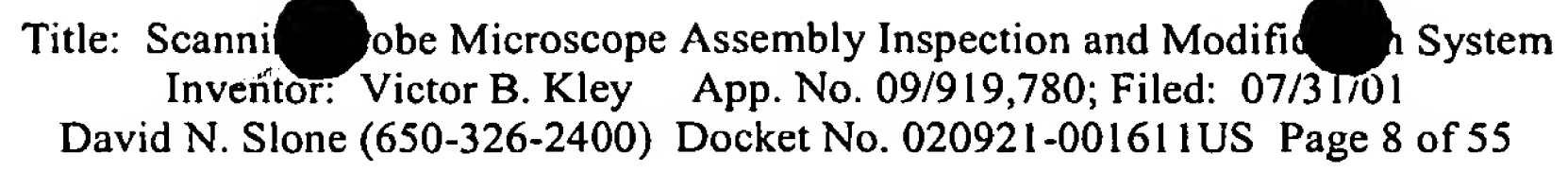


Figure 11



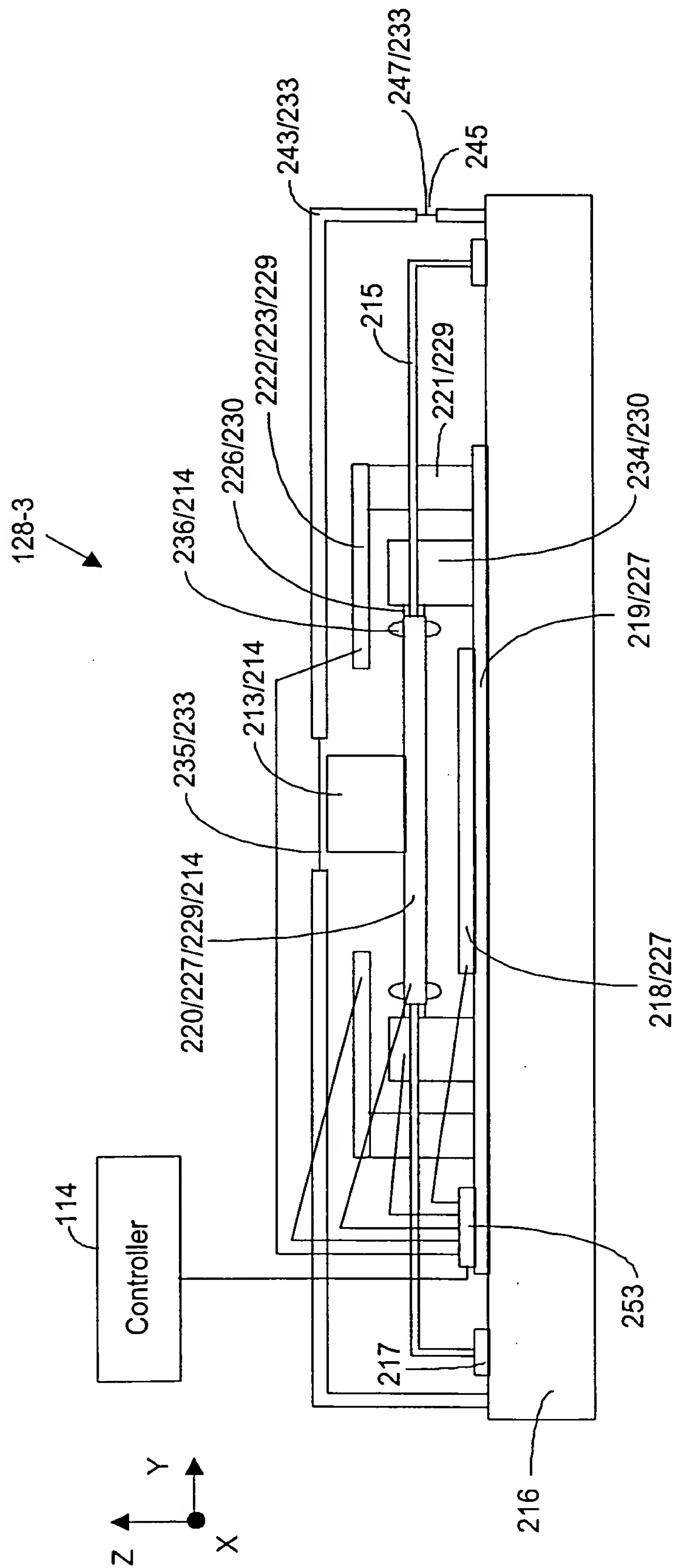


Figure 13

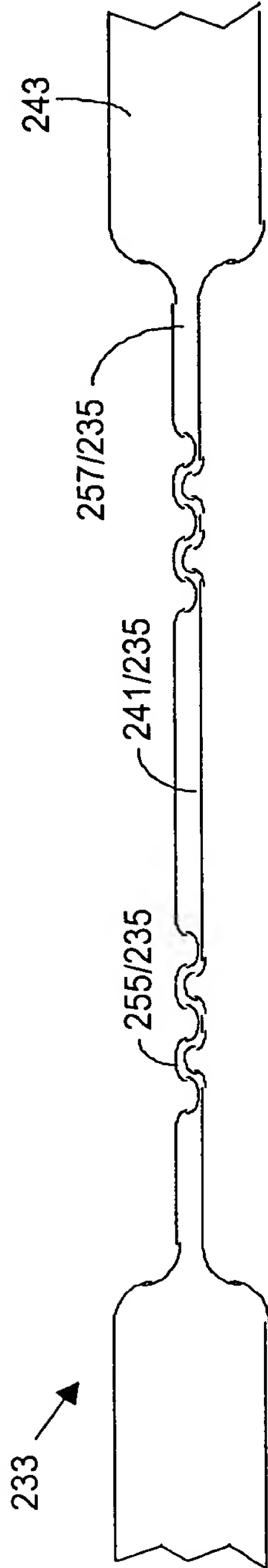


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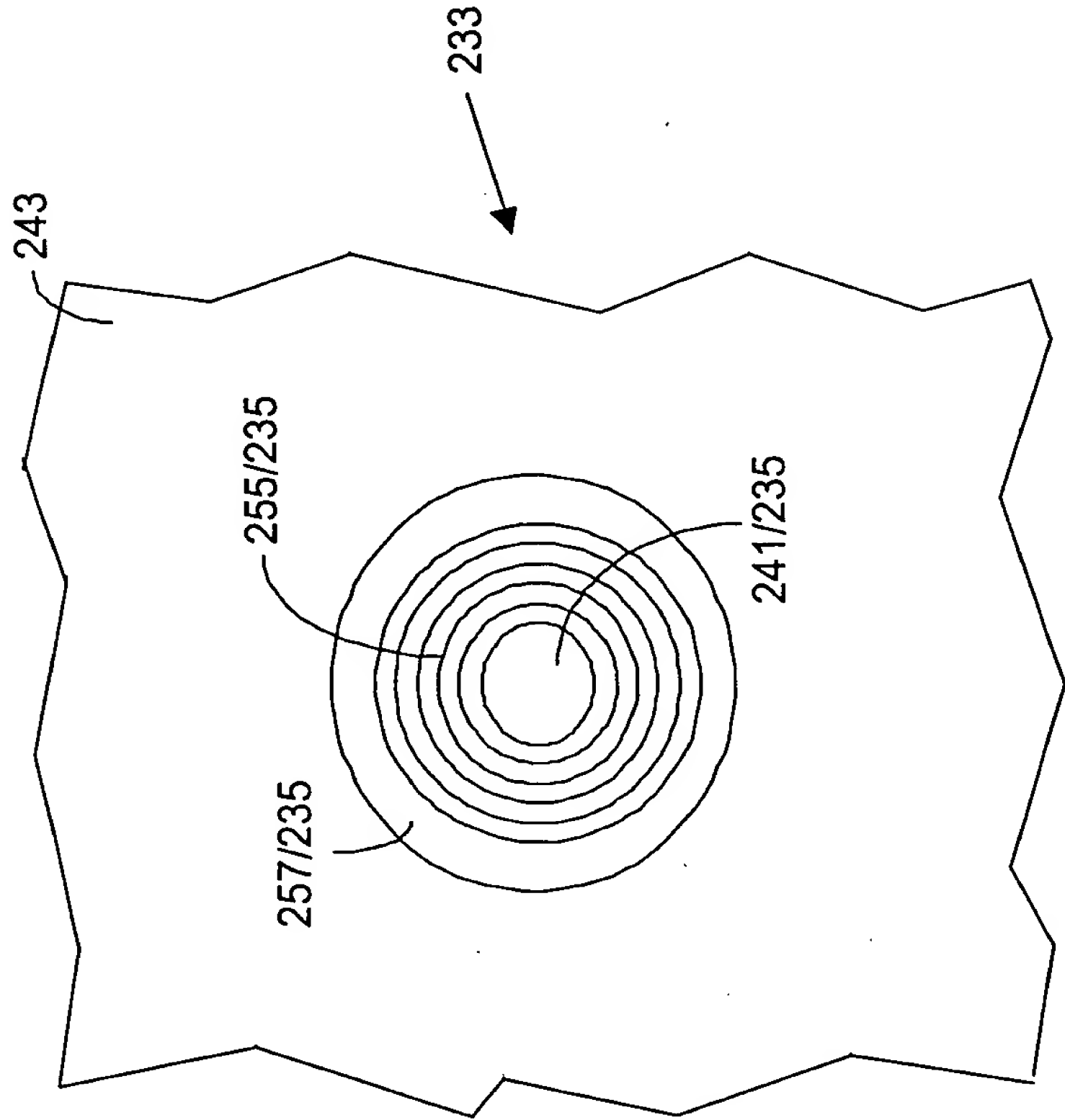


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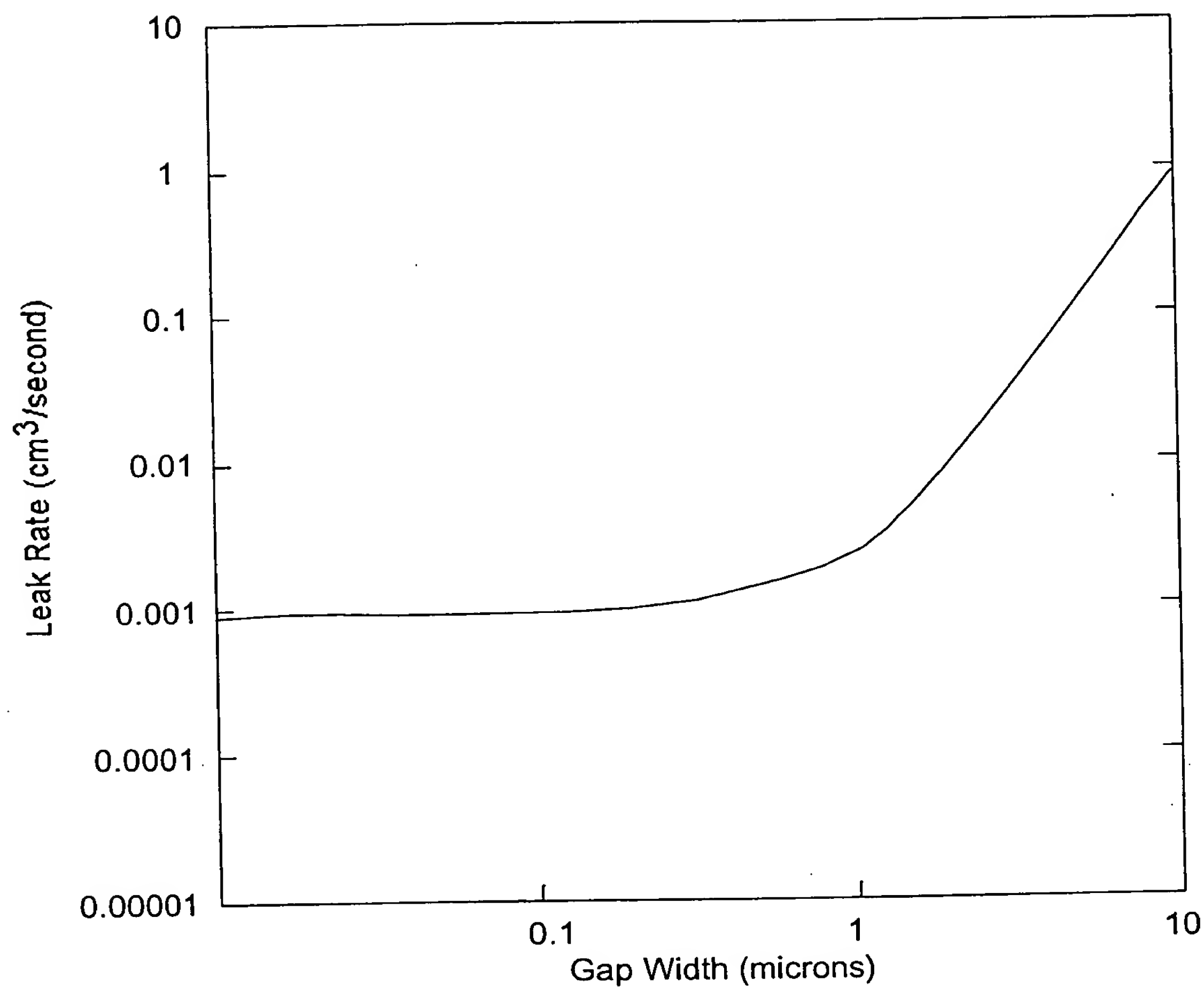


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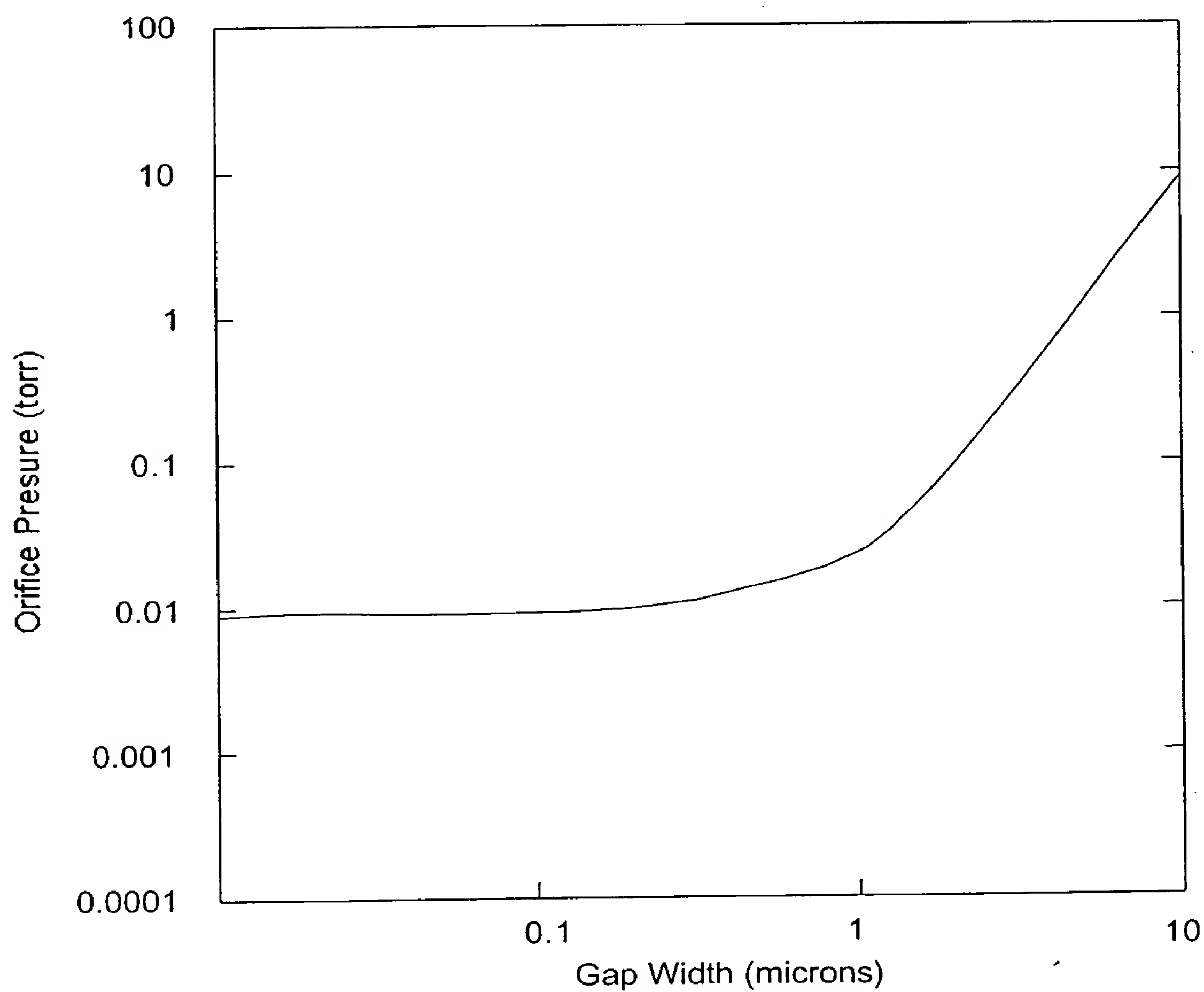


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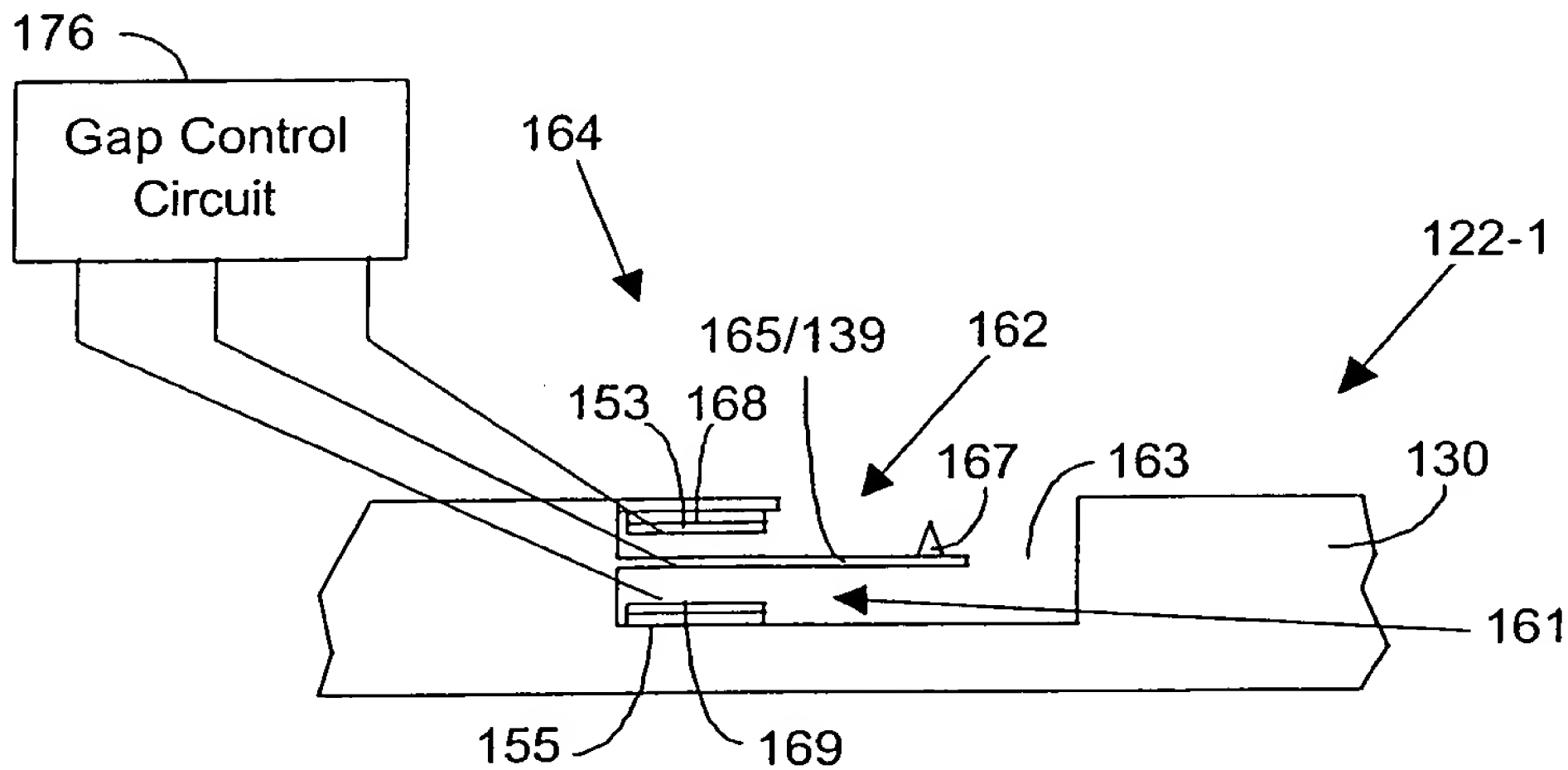


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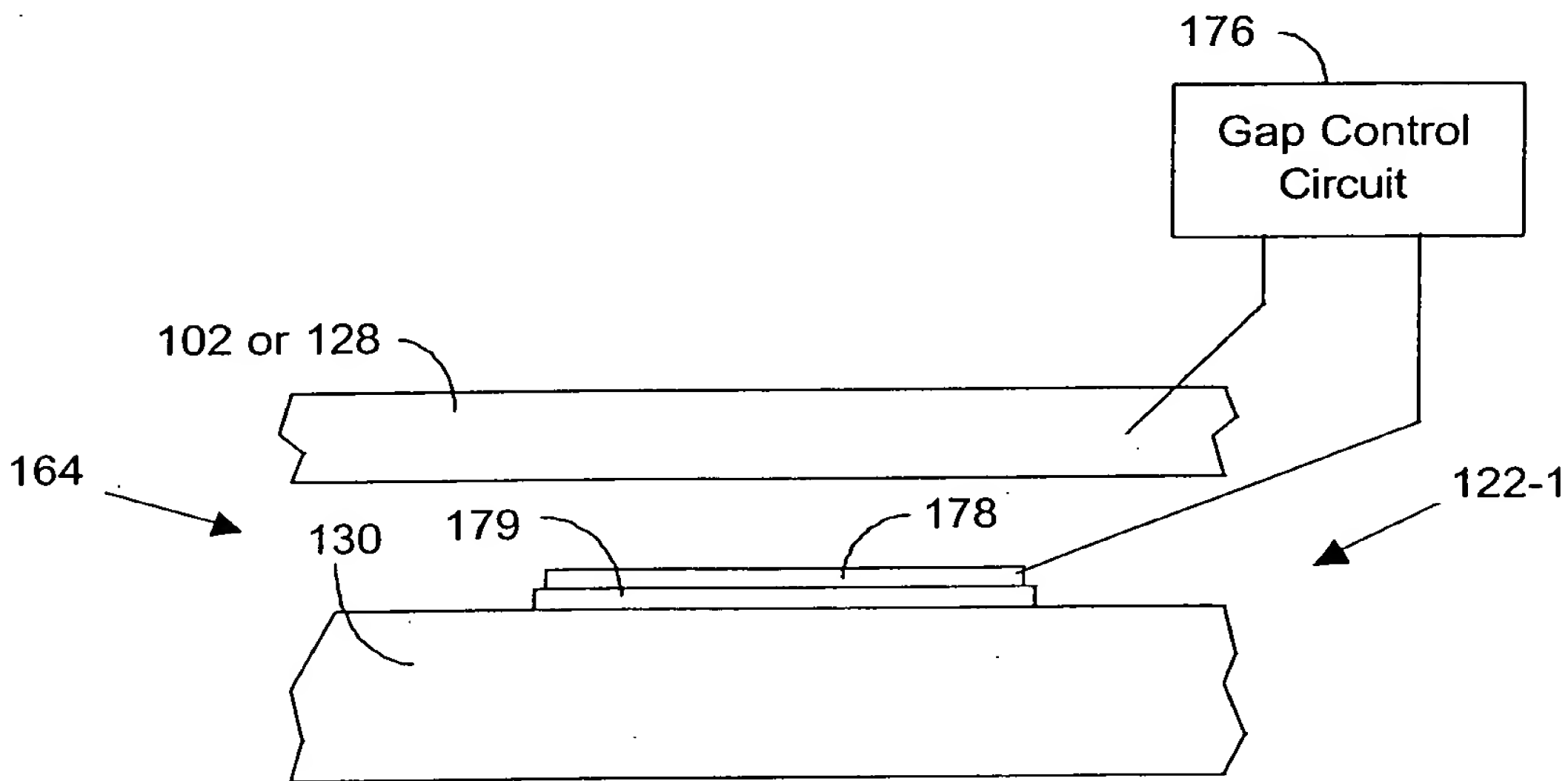


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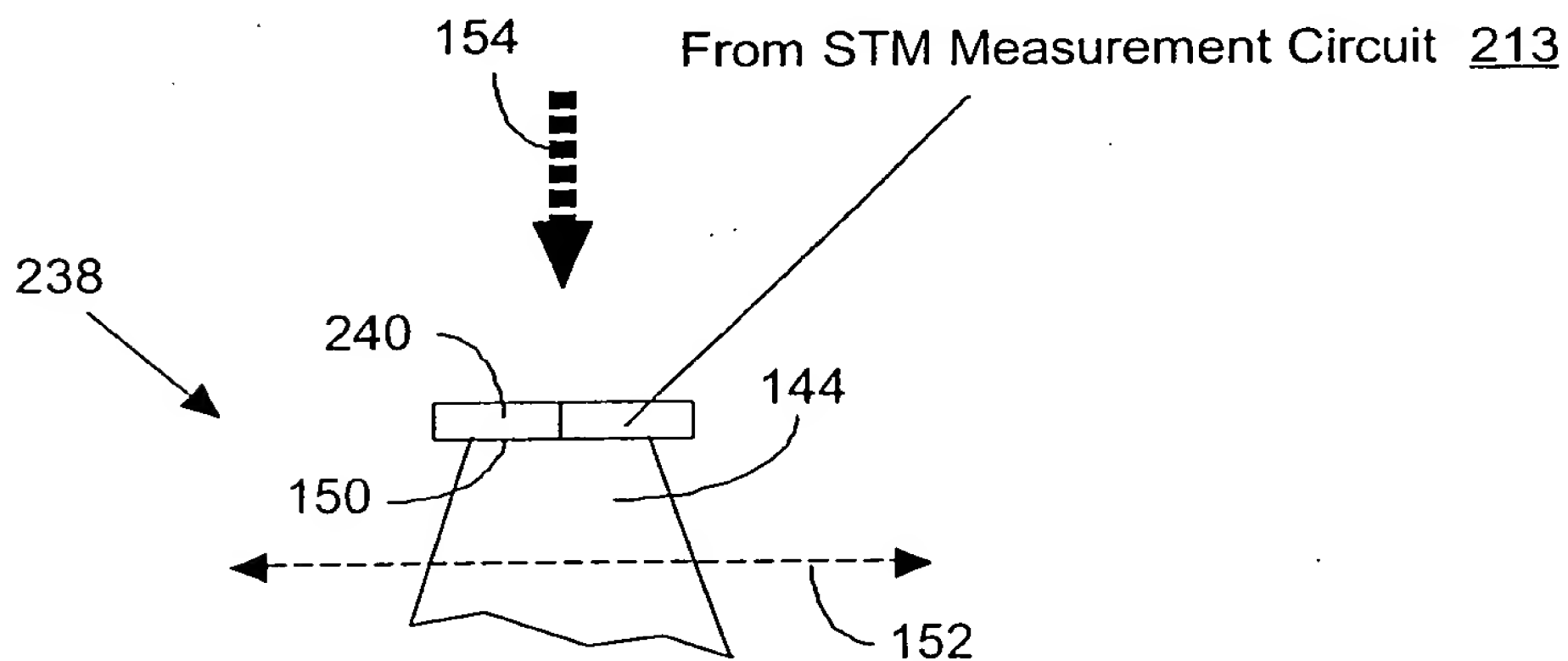
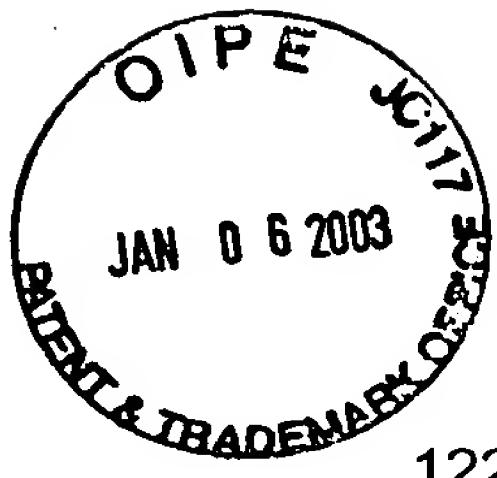


Figure 21



122-2

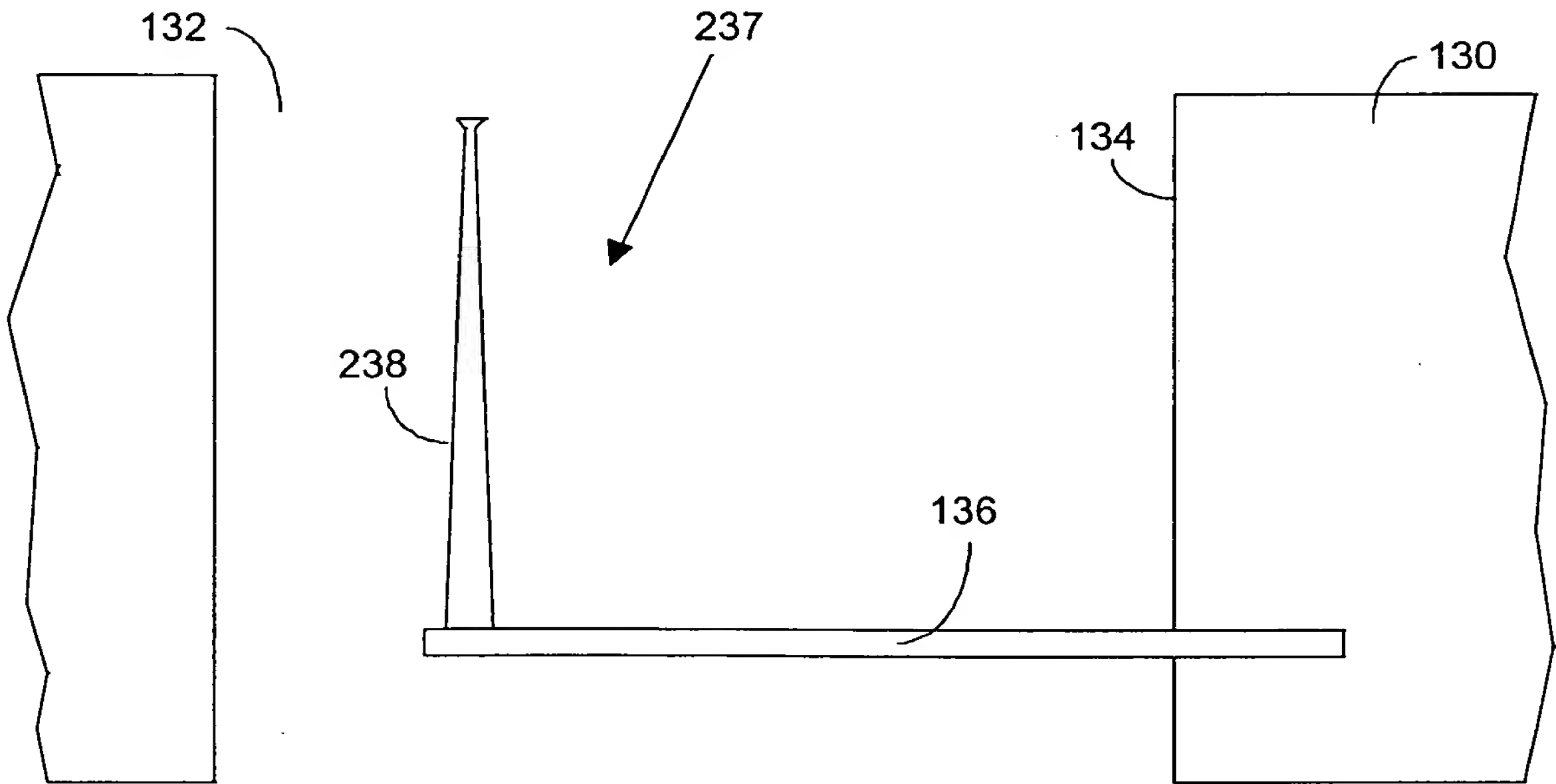


Figure 20

From STM
Measurement
Circuit 213

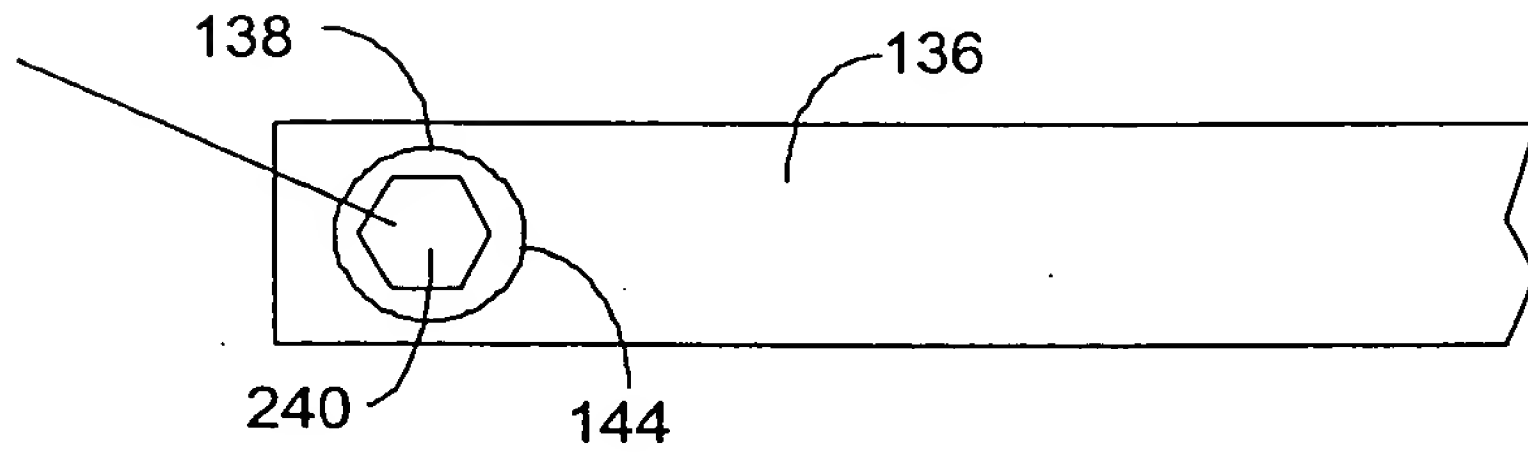


Figure 22

From STM
Measurement
Circuit 213

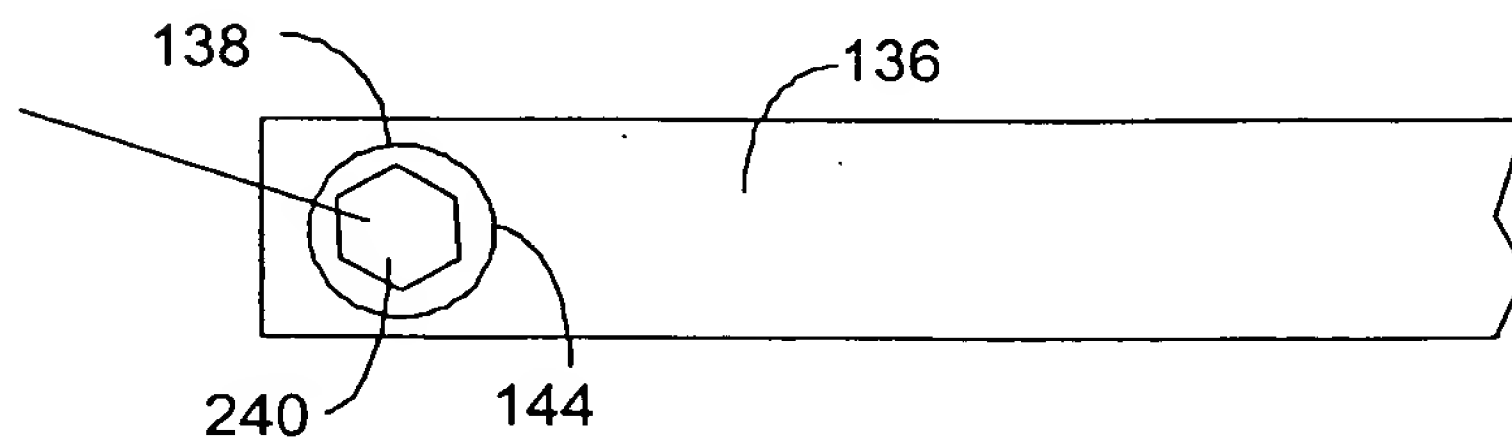


Figure 23

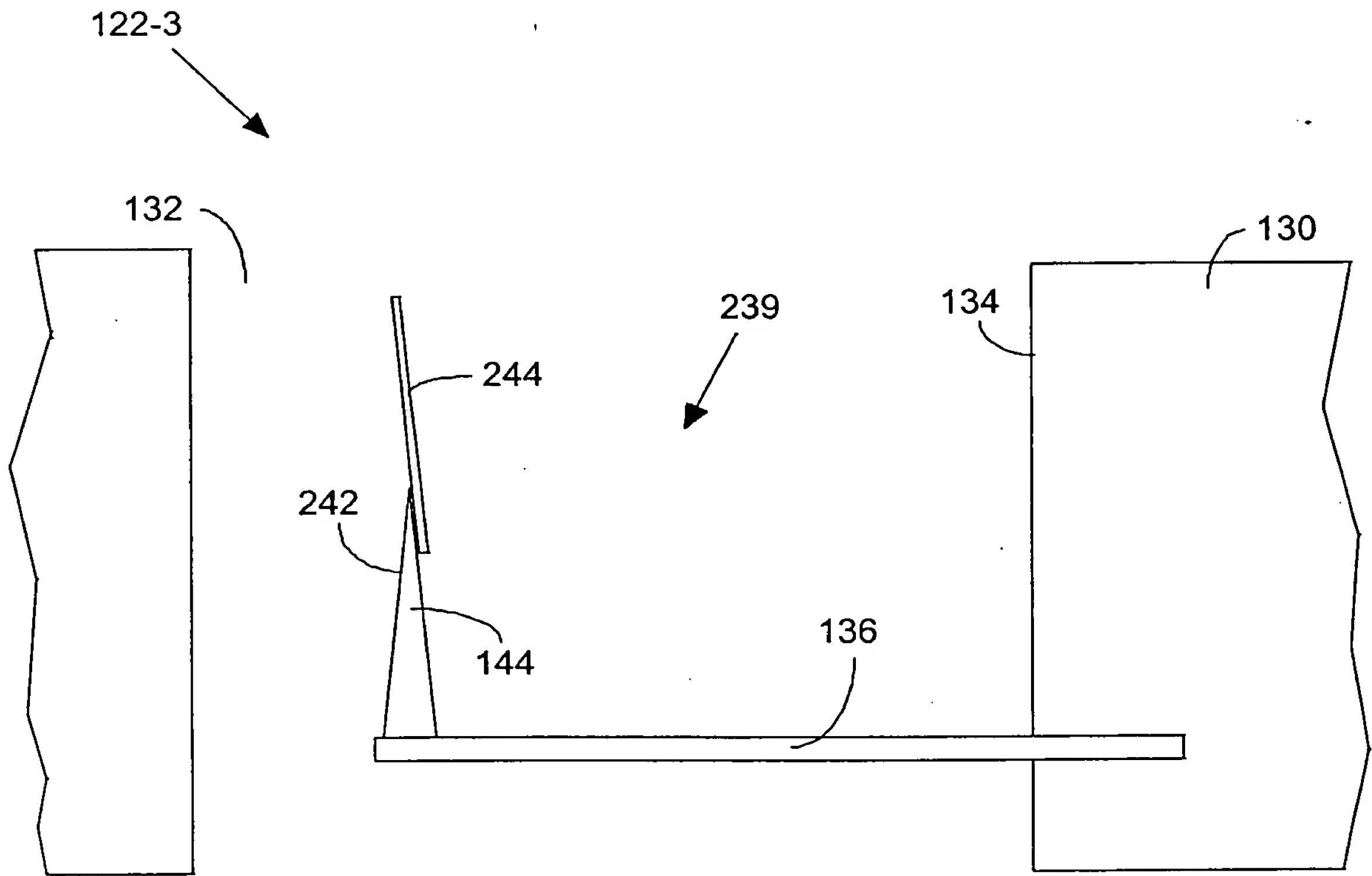
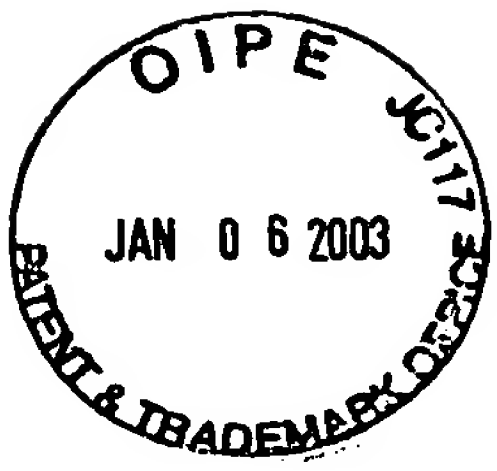


Figure 24

From STM Measurement Circuit 213

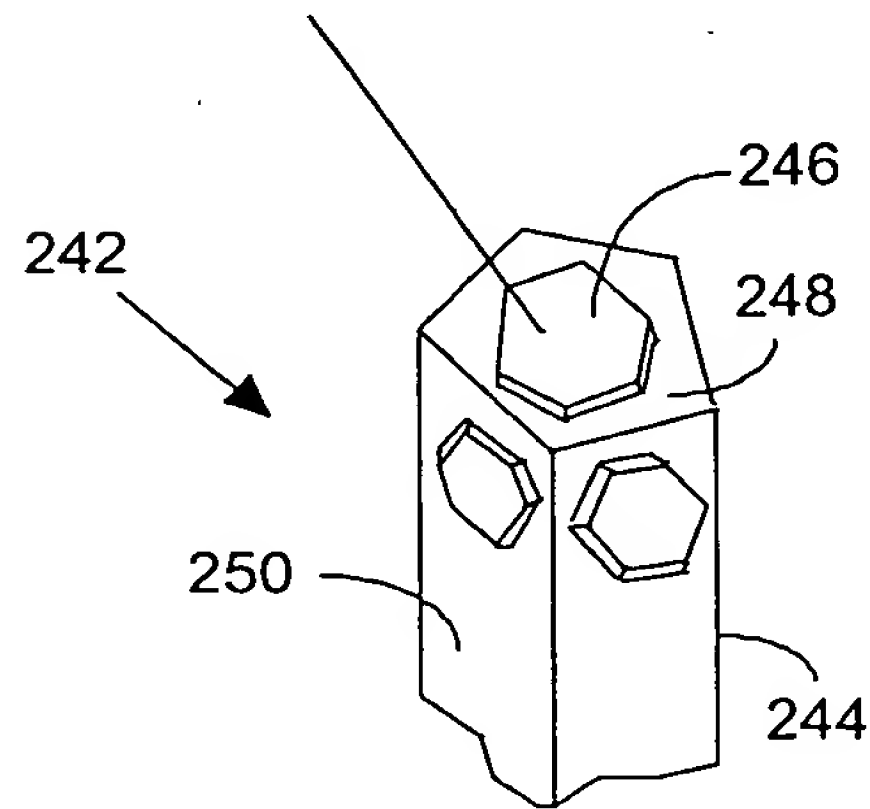


Figure 25

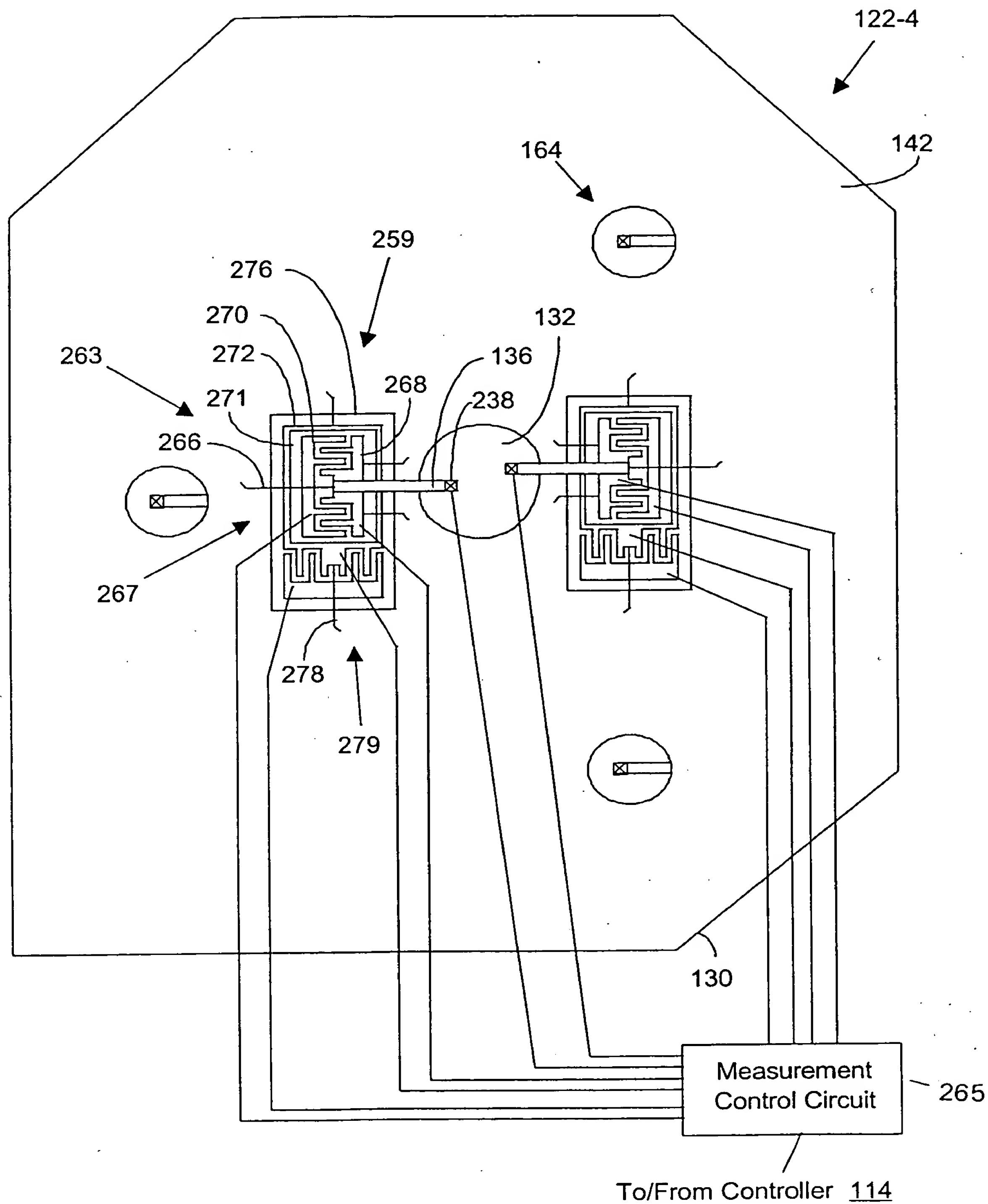
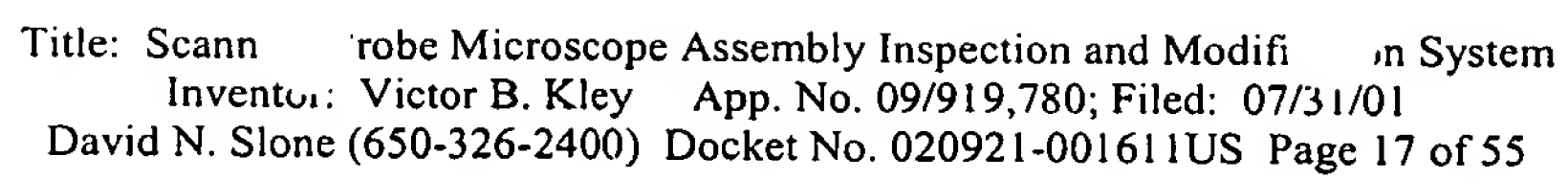


Figure 26



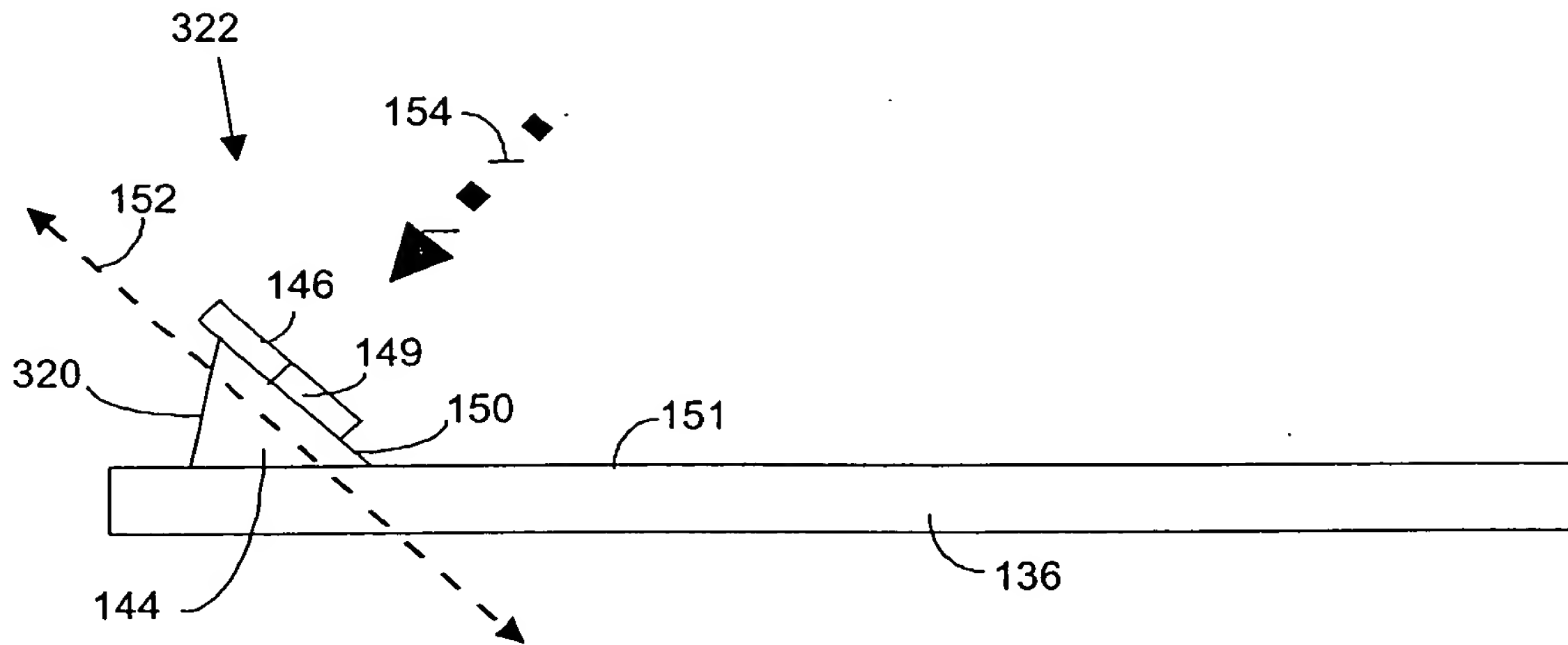


Figure 28

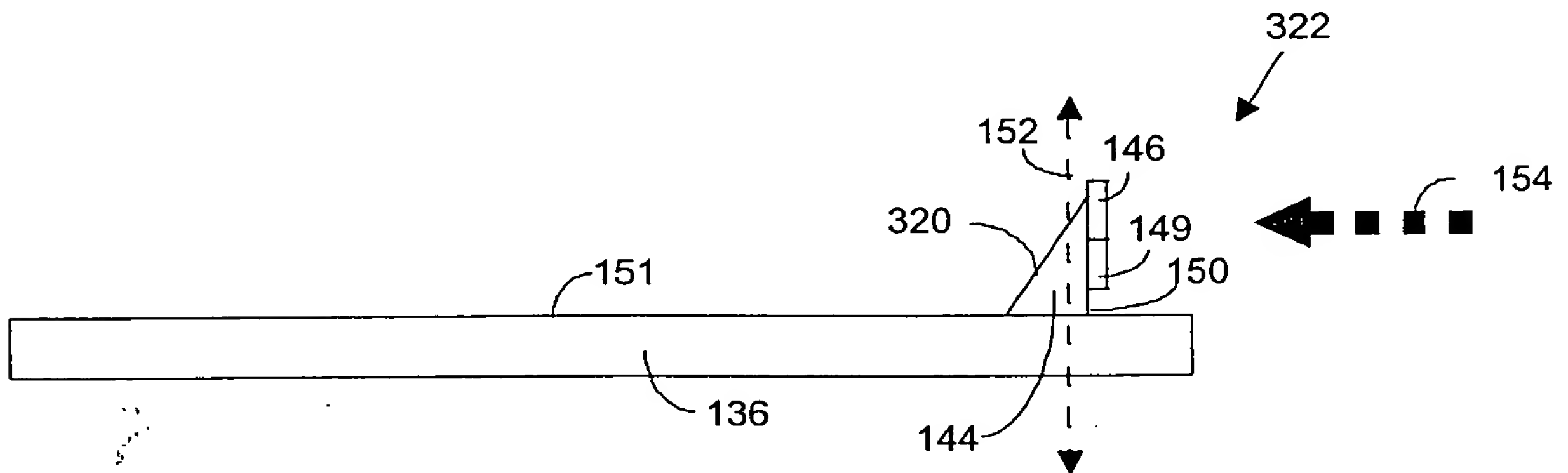


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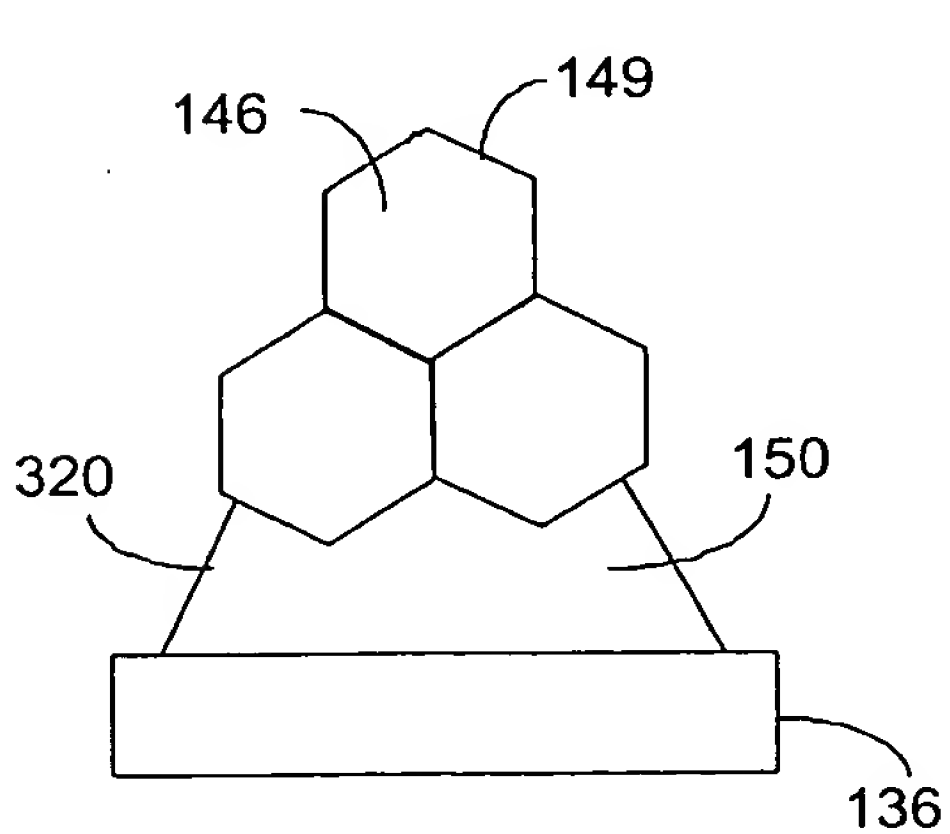


Figure 30

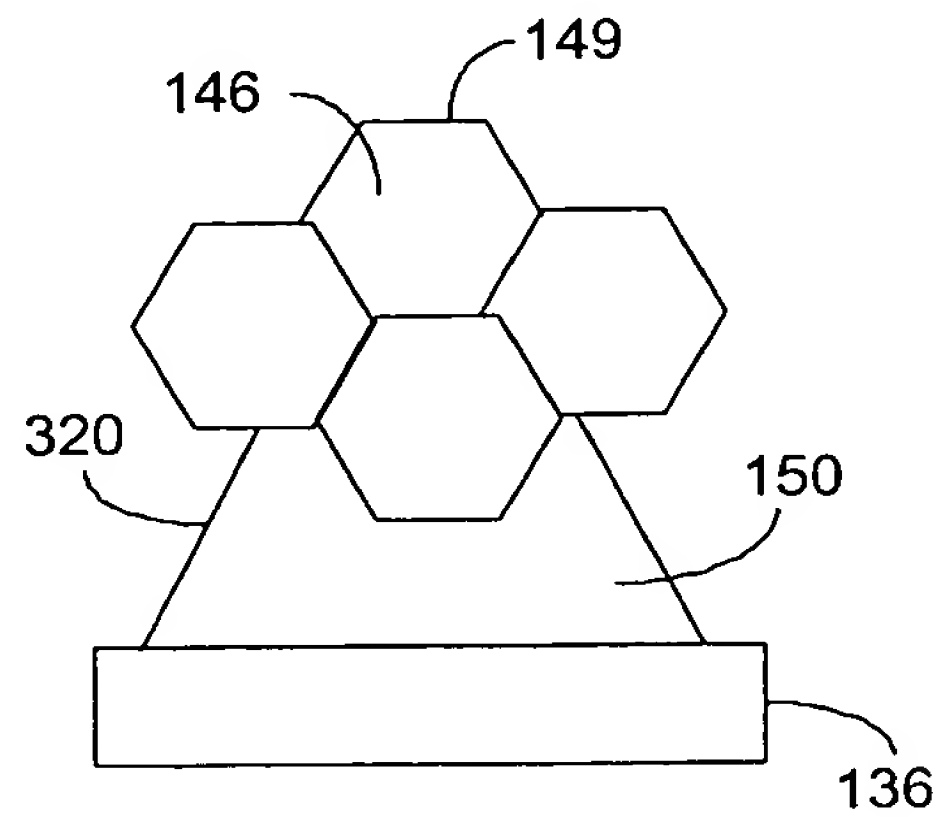


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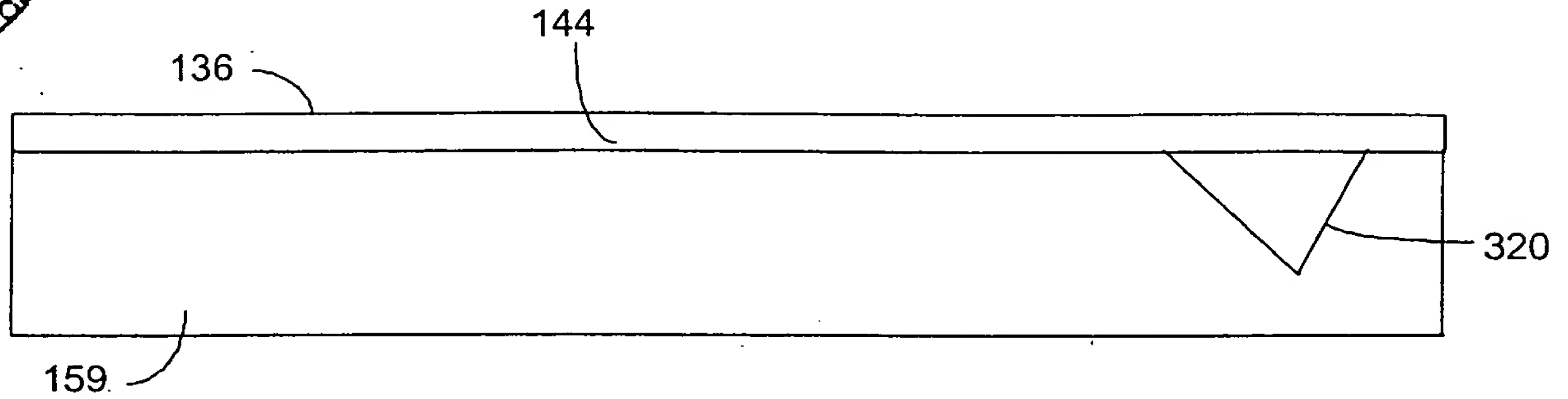
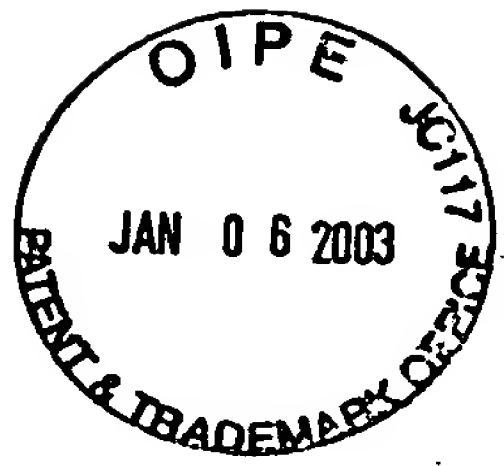


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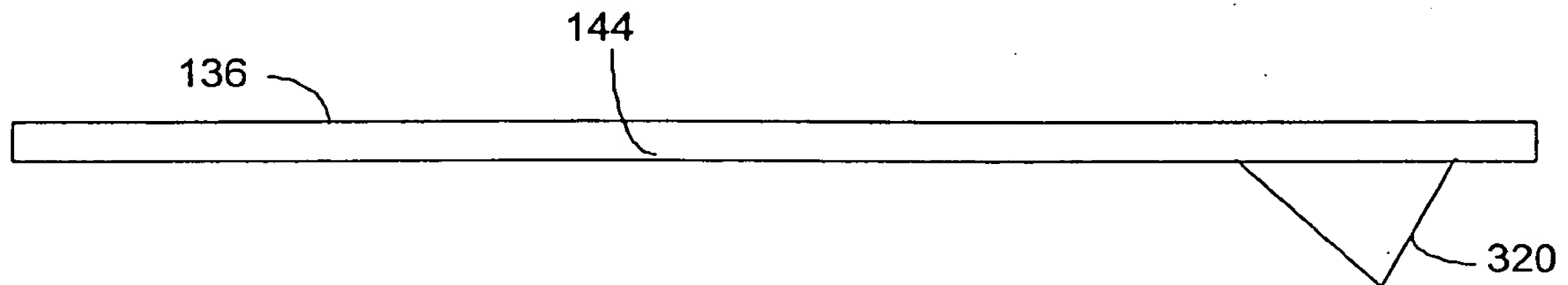


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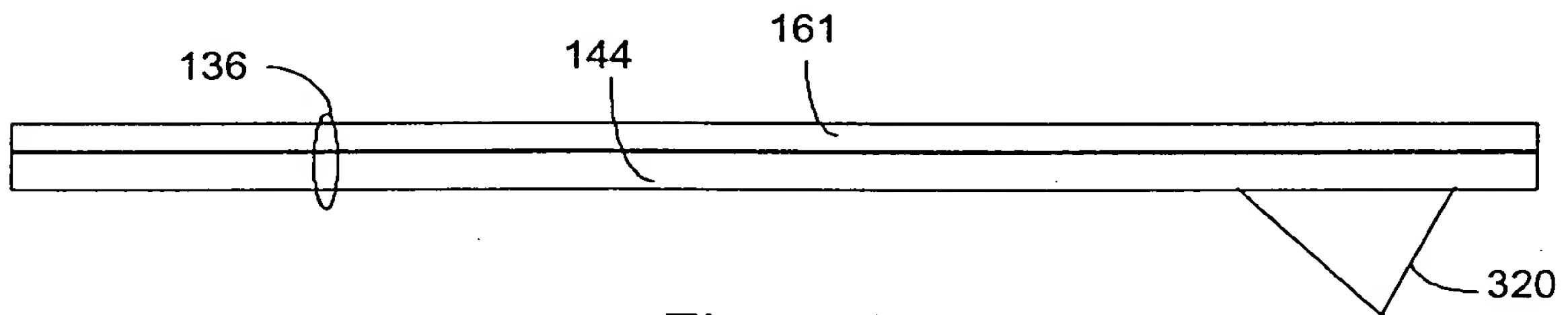


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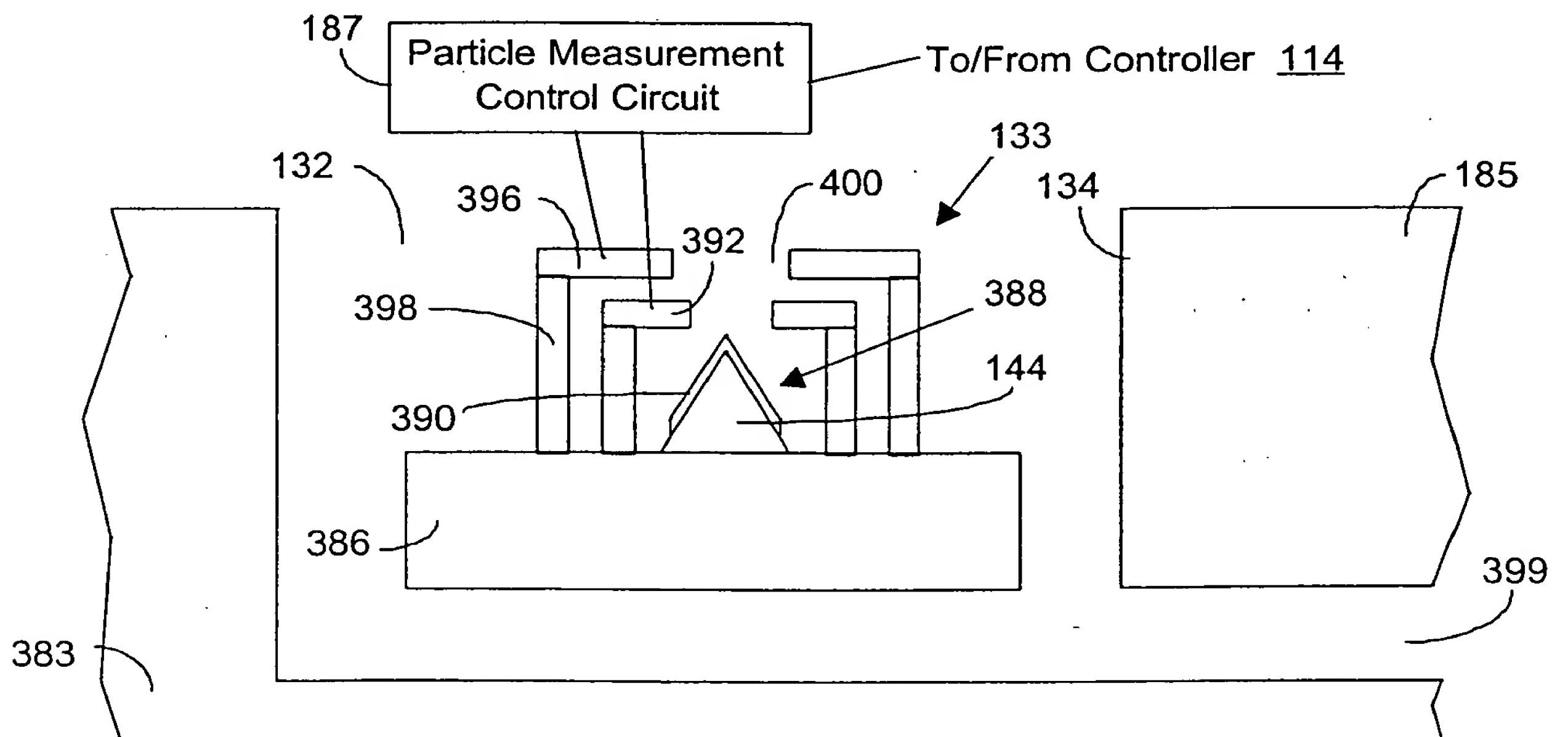
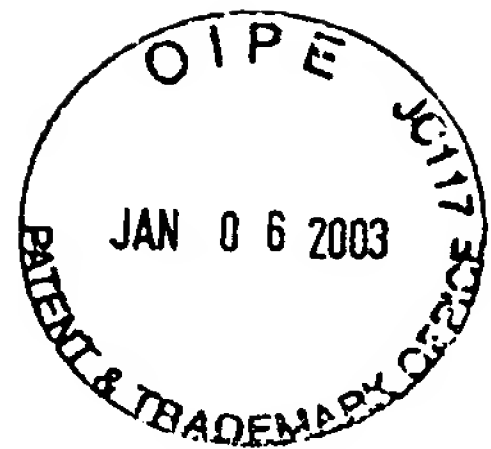


Figure 43



Title: Scanning Probe Microscope Assembly Inspection and Modification System
Inventor: Victor B. Kley App. No. 09/919,780; Filed: 07/31/01
David N. Slone (650-326-2400) Docket No. 020921-001611US Page 19 of 55

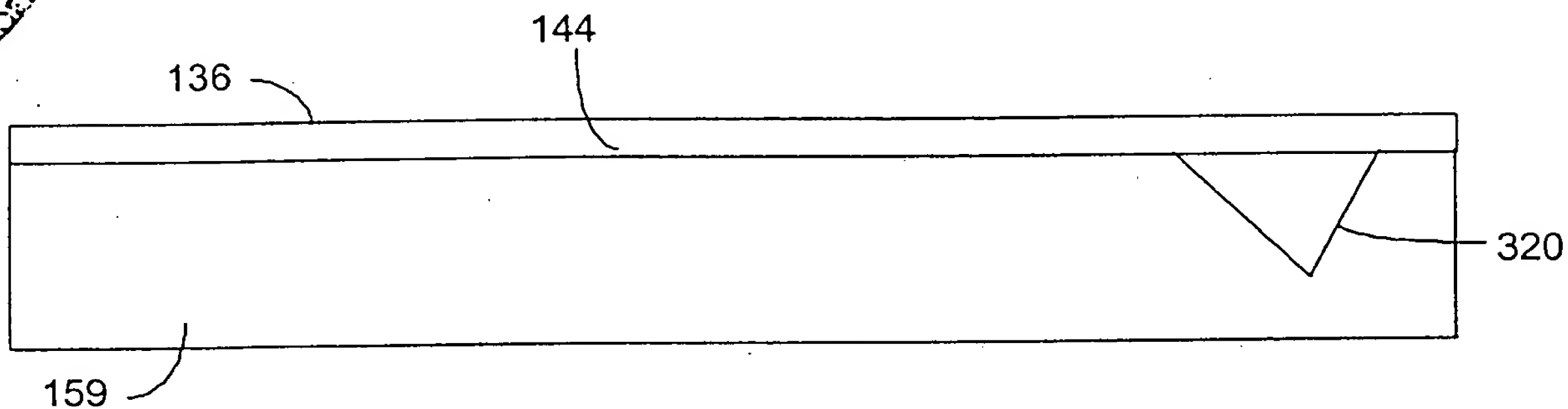


Figure 32

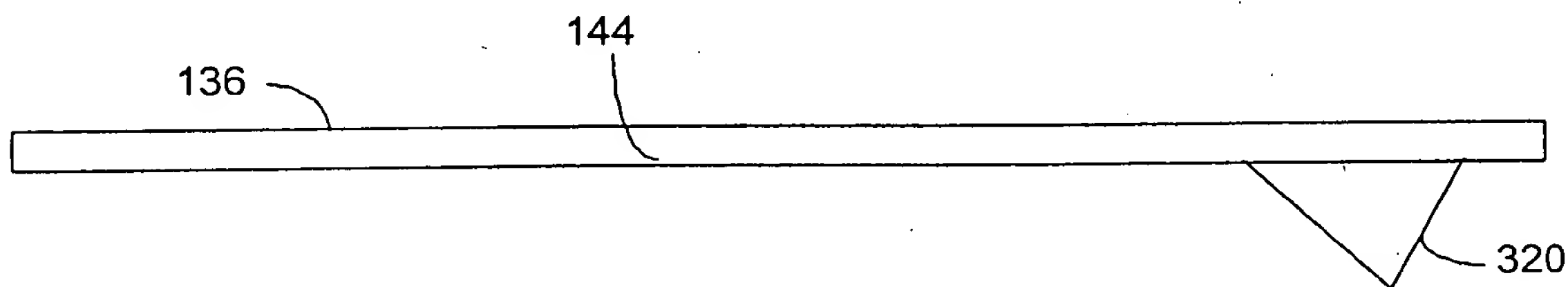


Figure 33

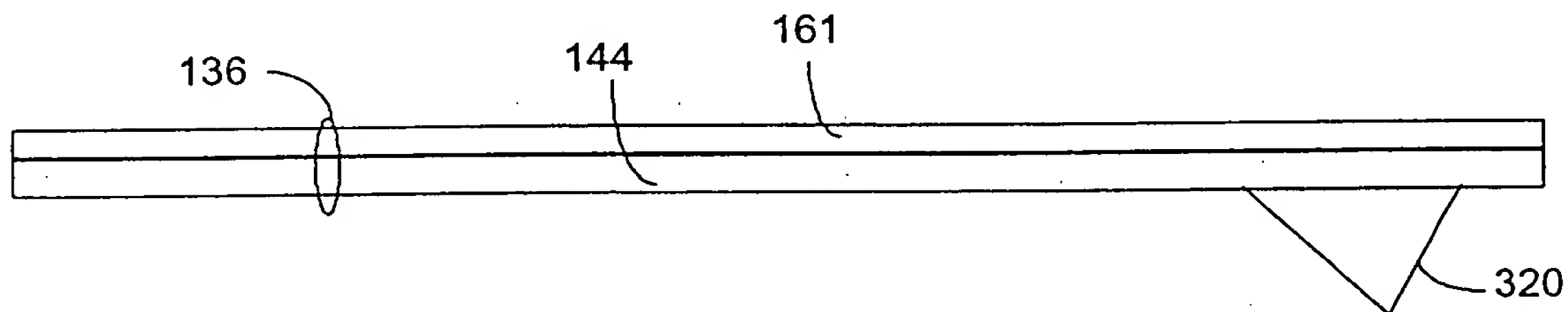


Figure 34

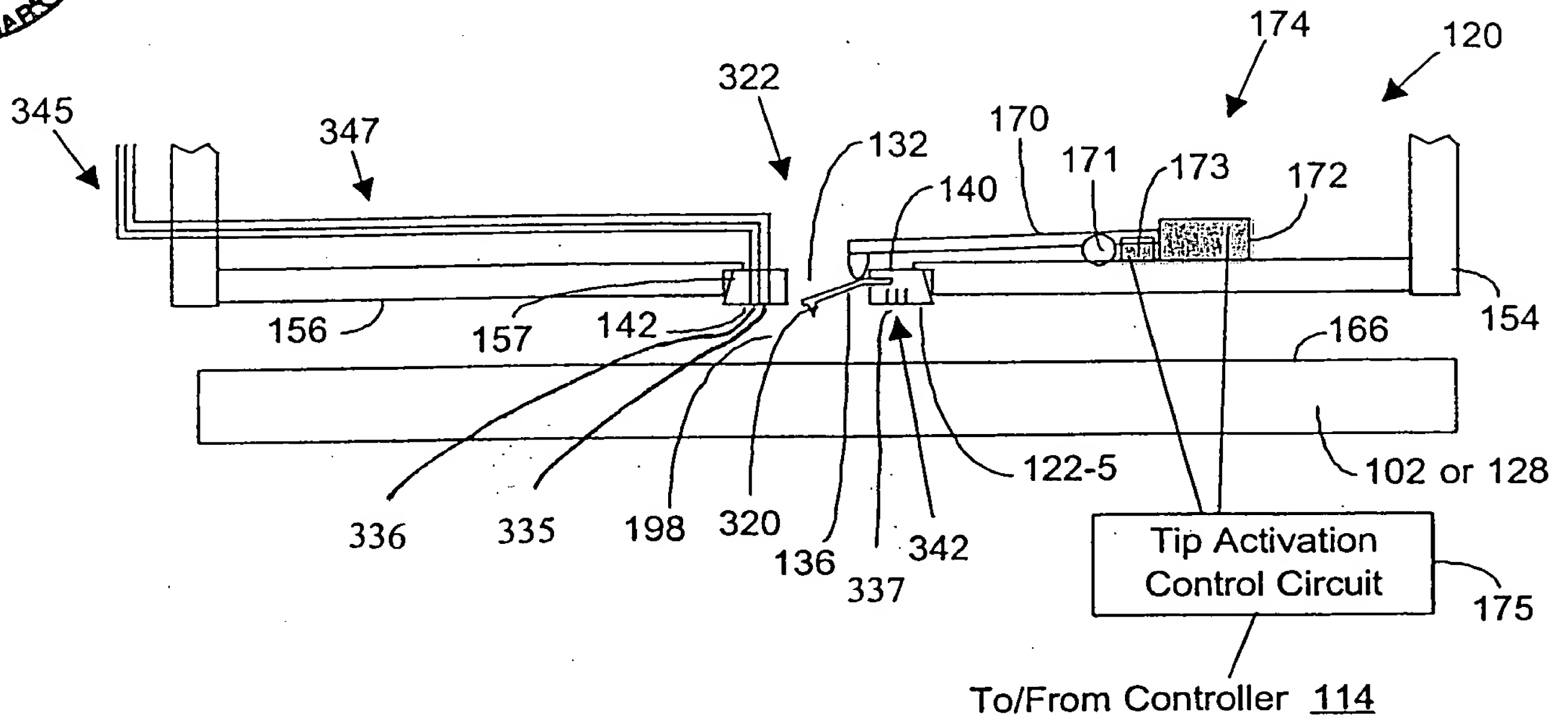


Figure 35

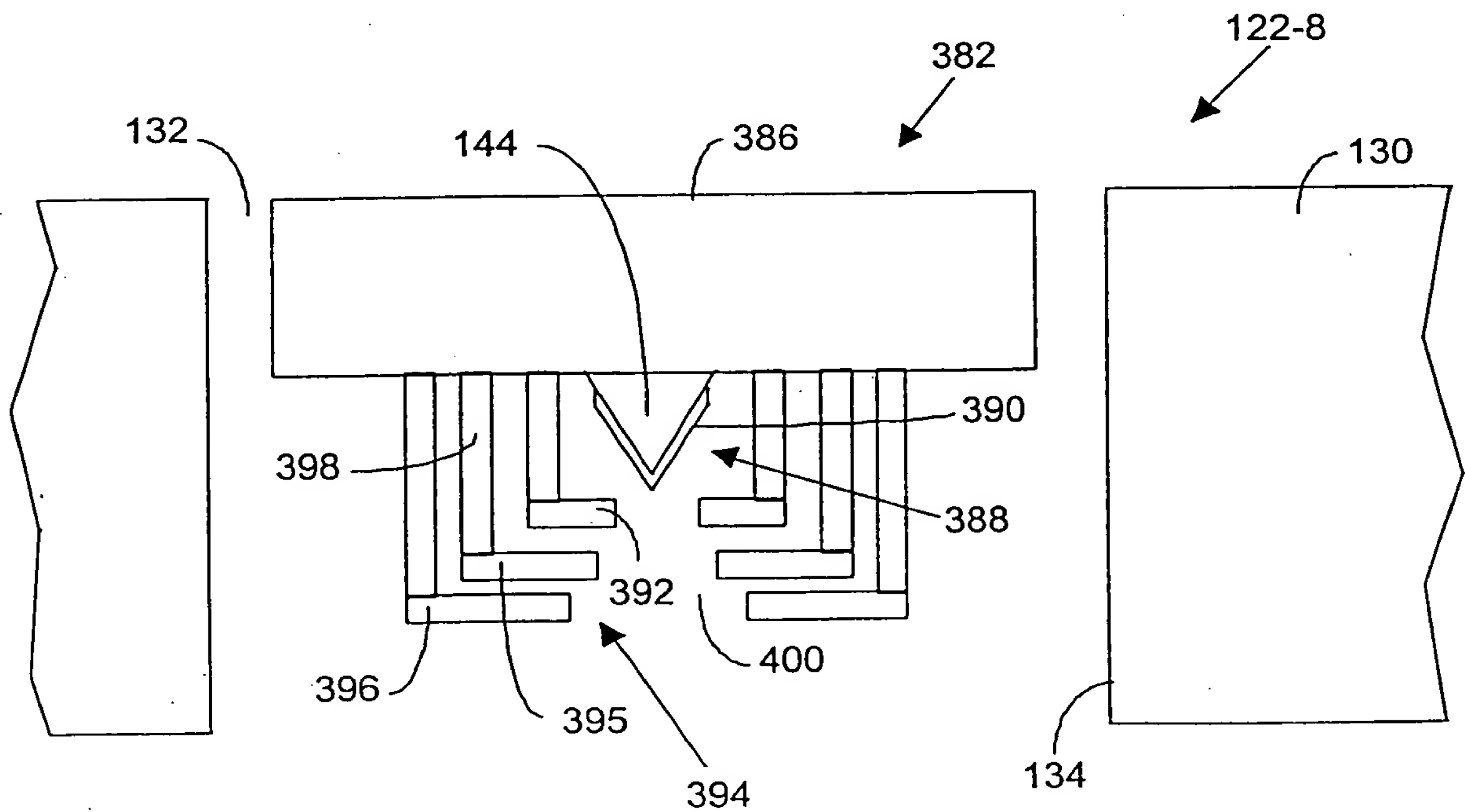
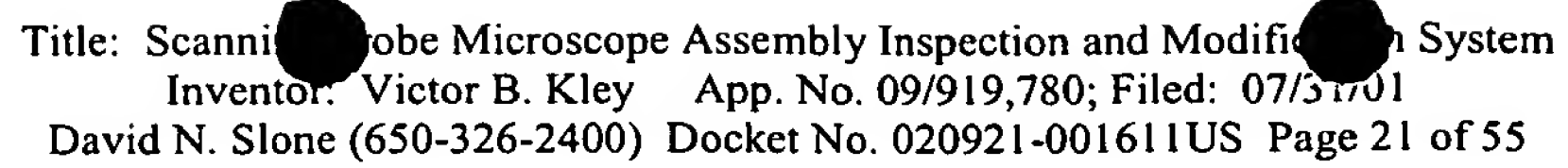
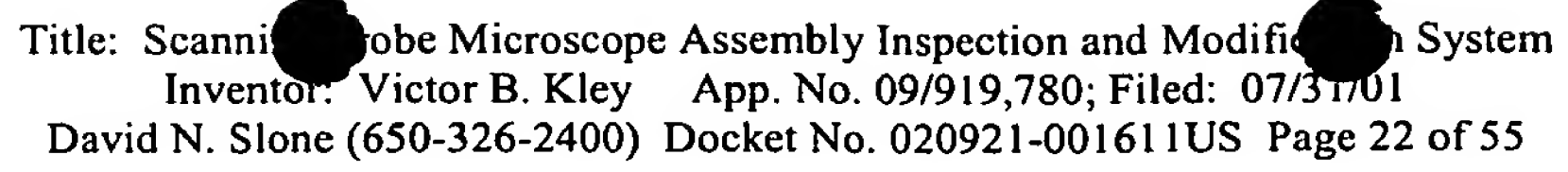
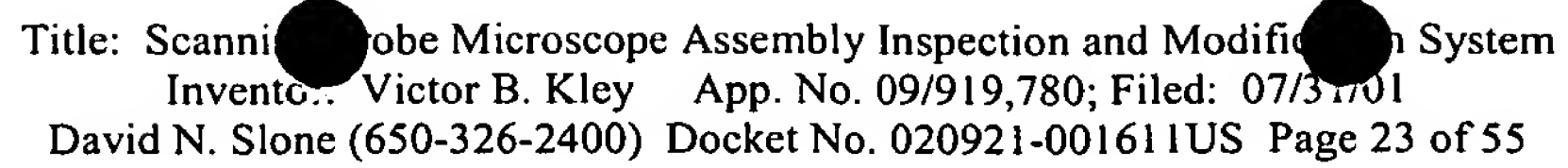
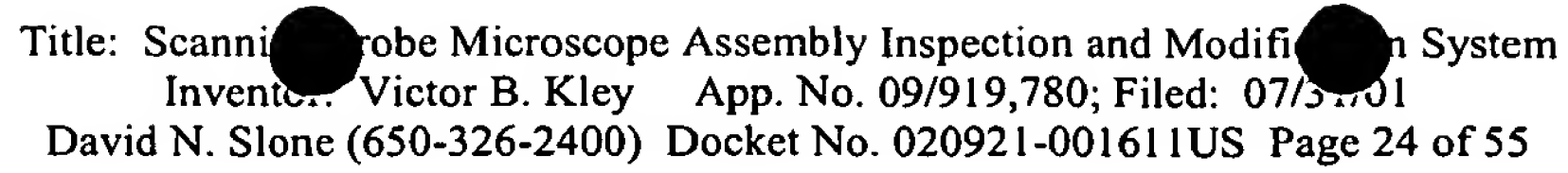


Figure 41









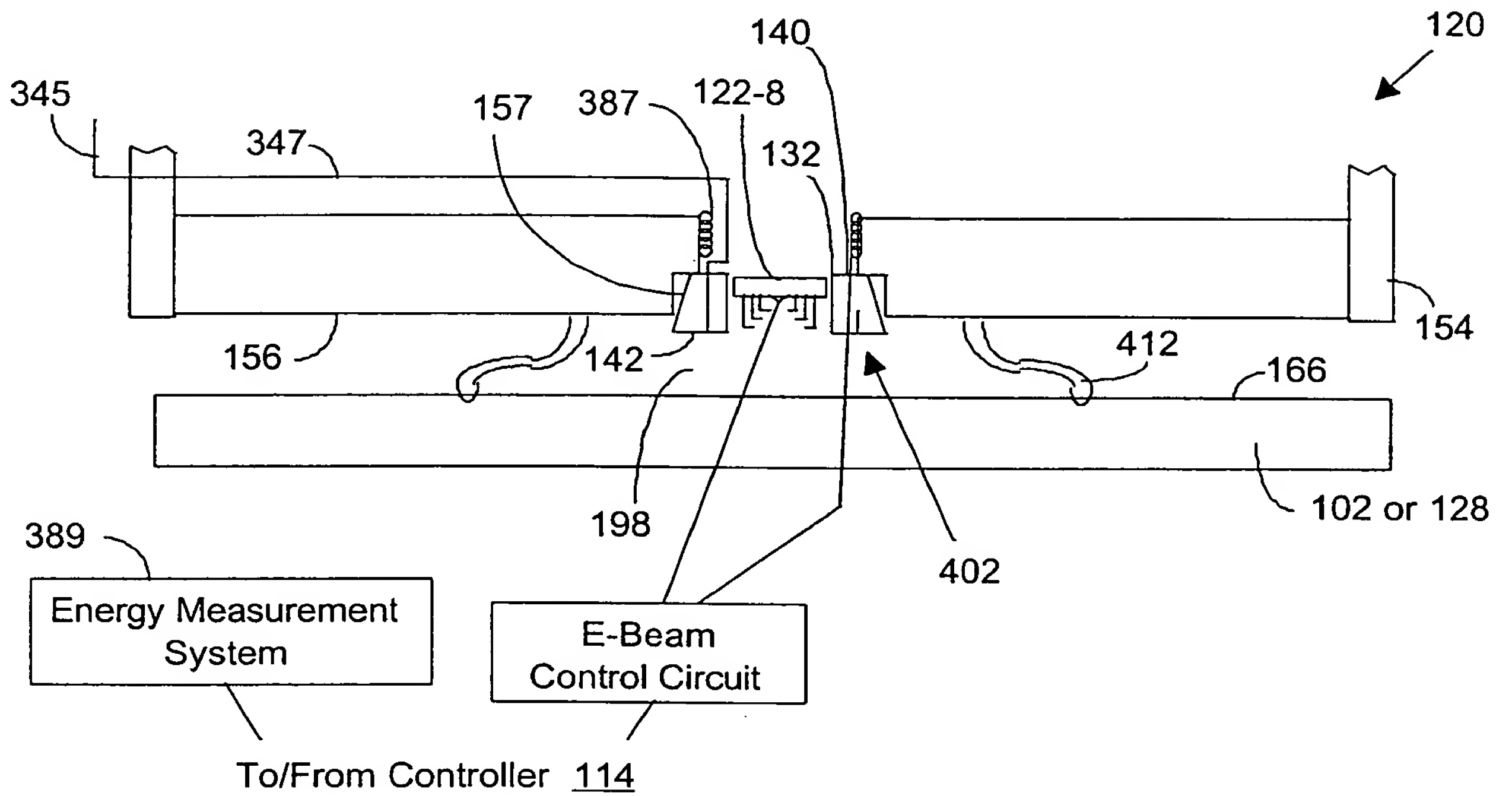


Figure 42

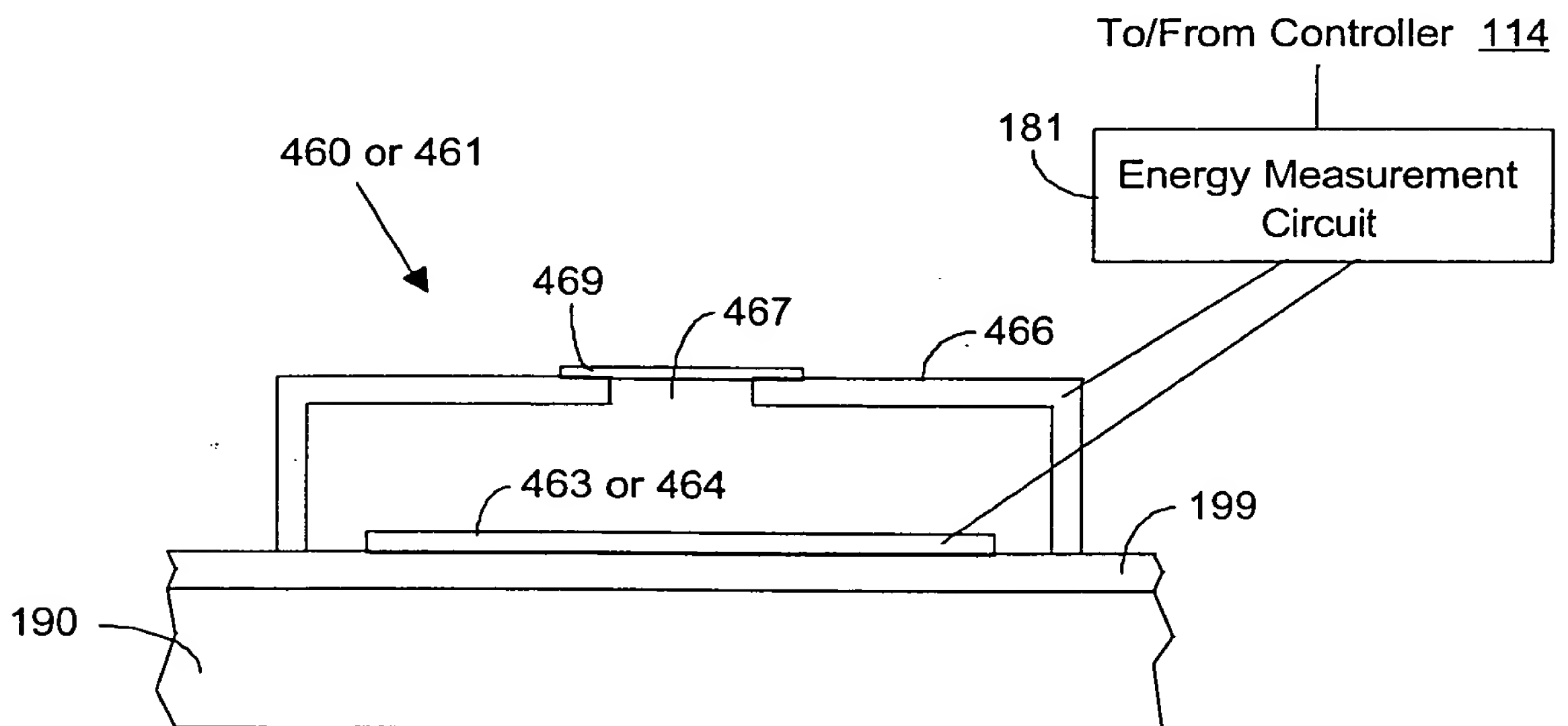


Figure 52

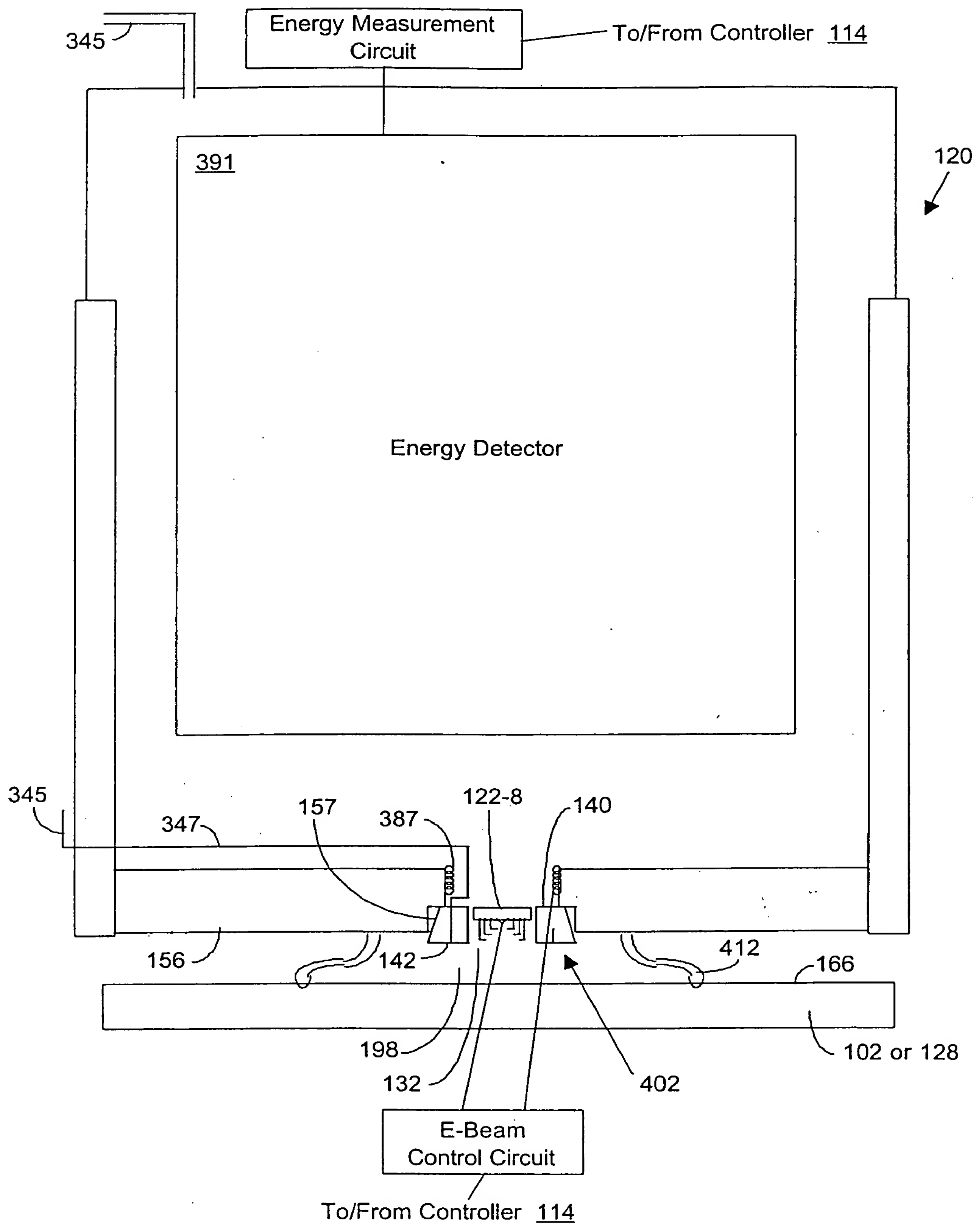


Figure 43

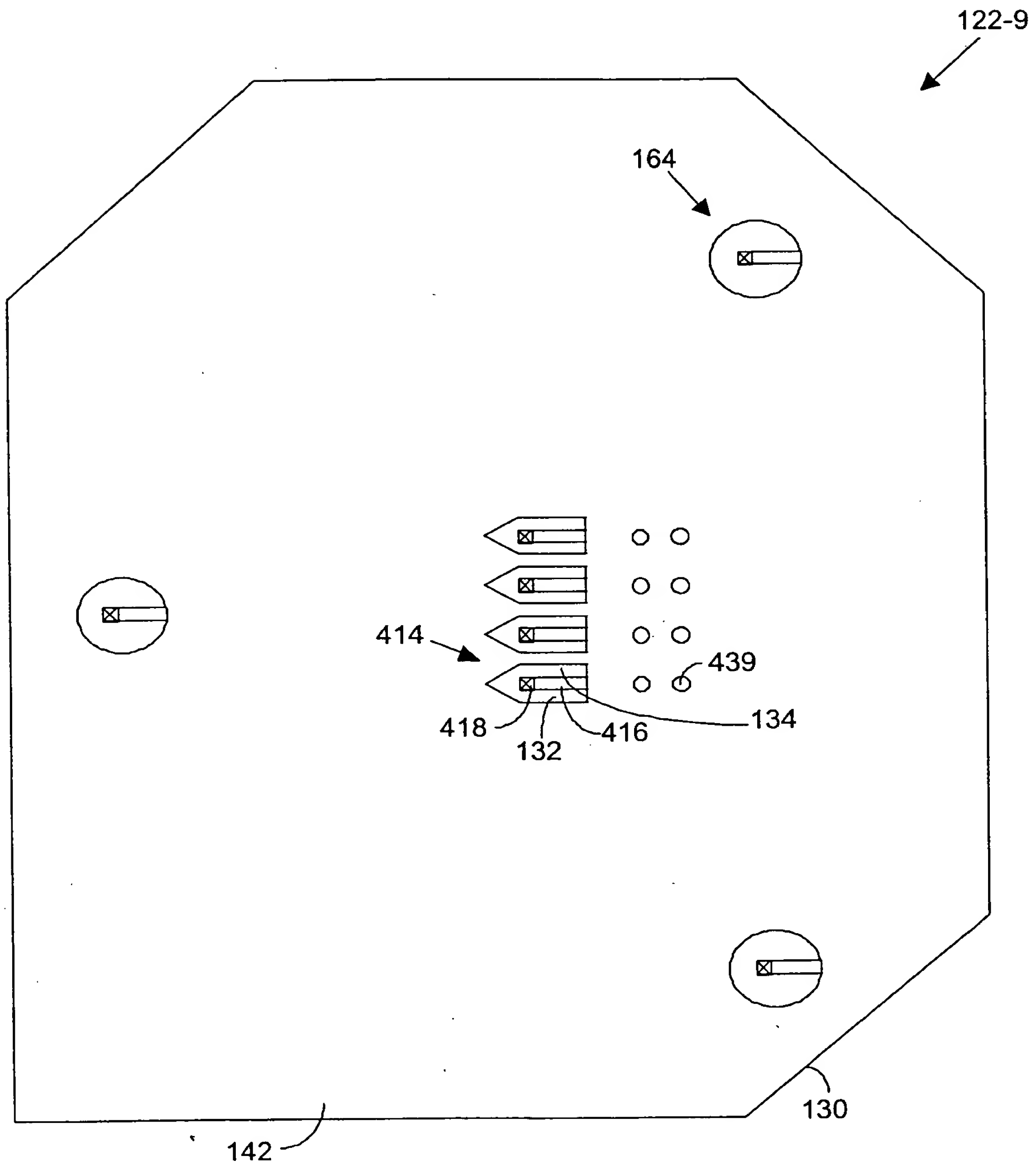
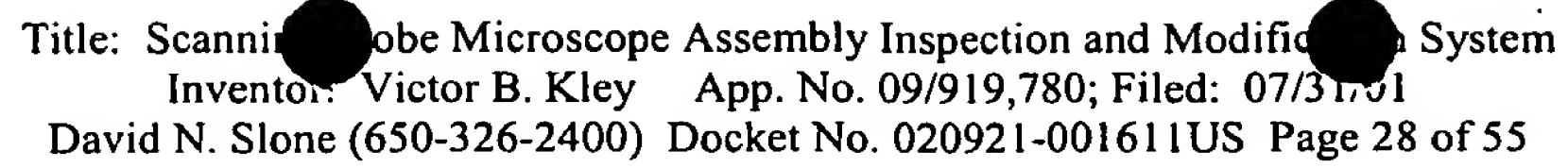


Figure 44



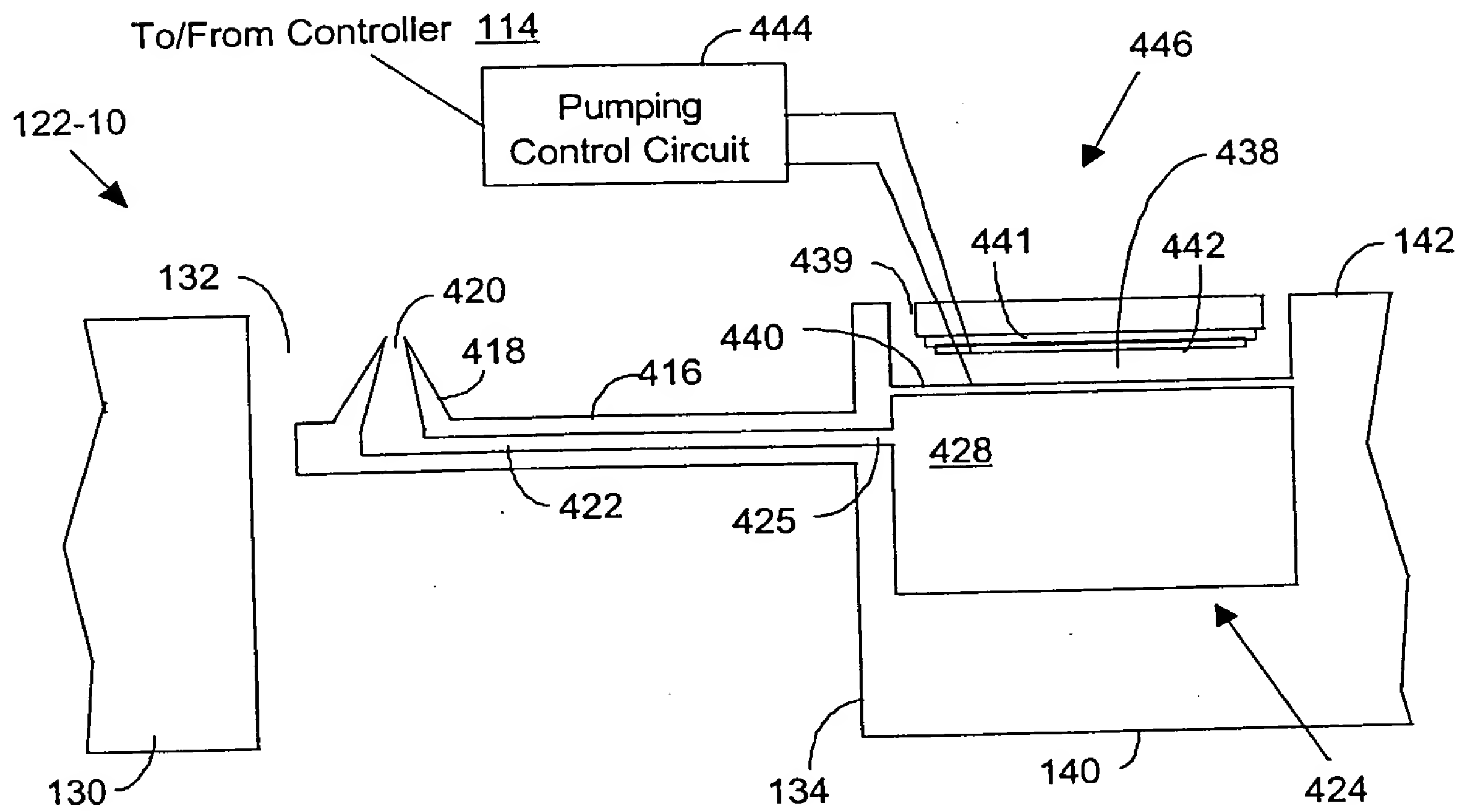


Figure 48

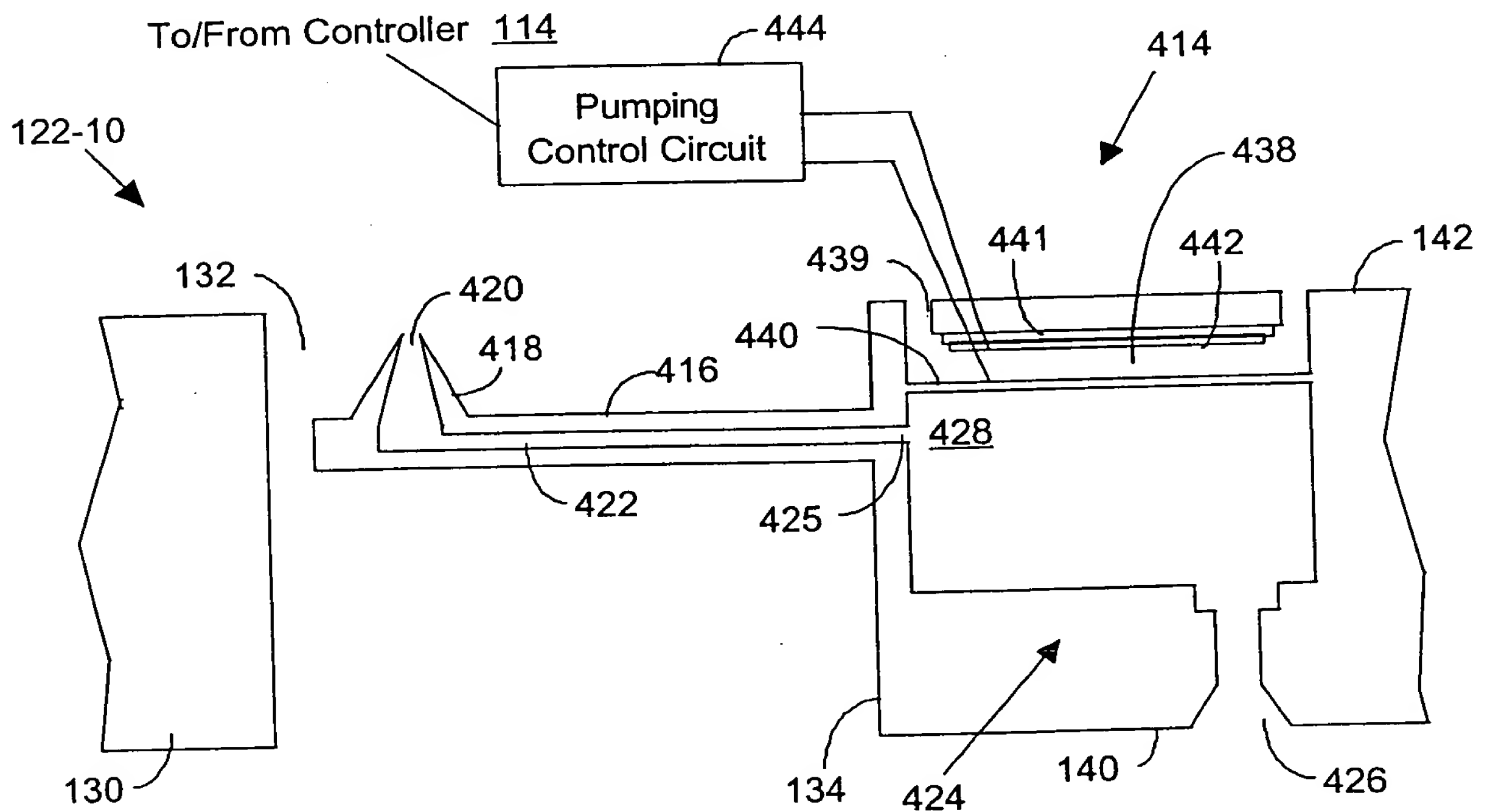


Figure 47

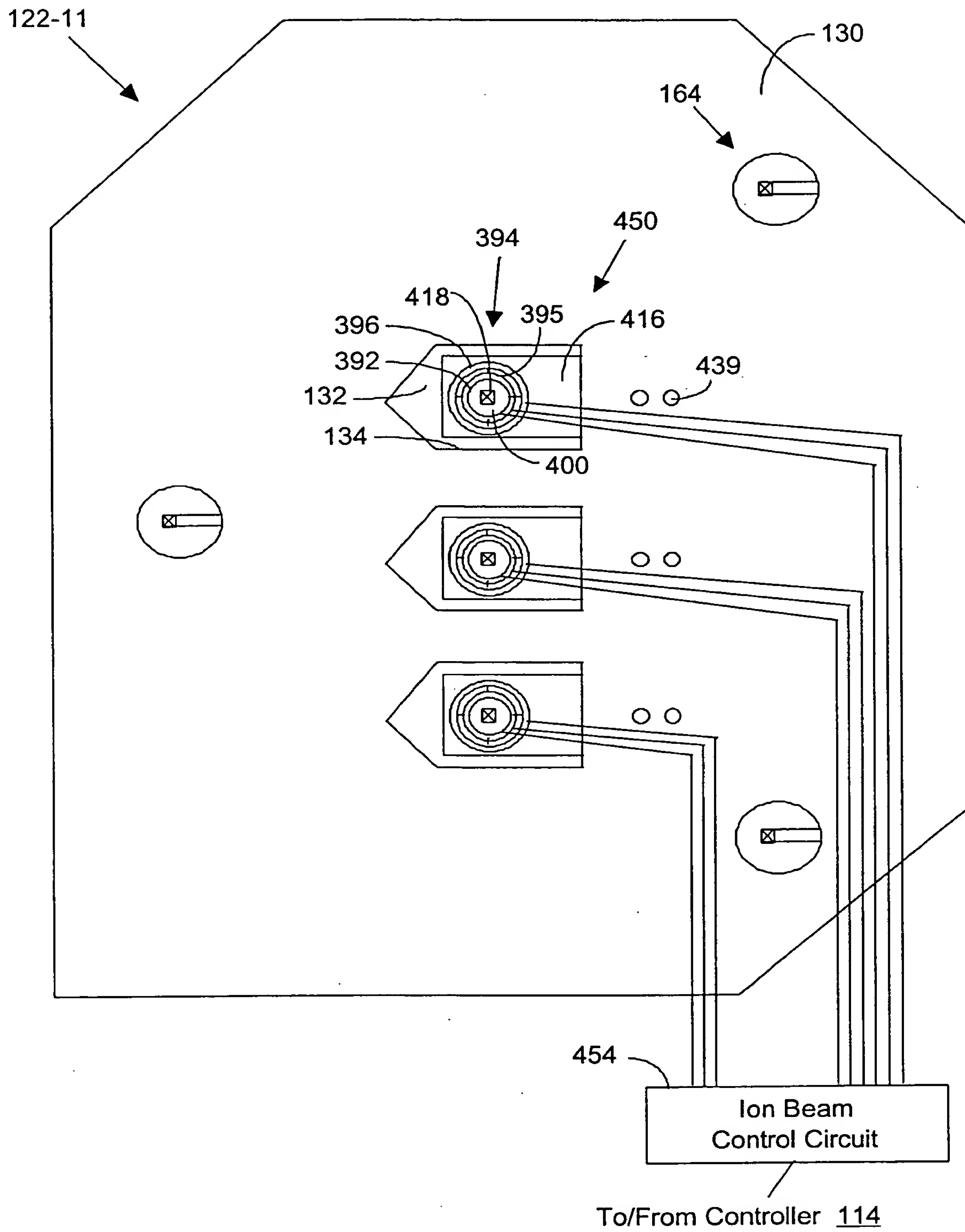
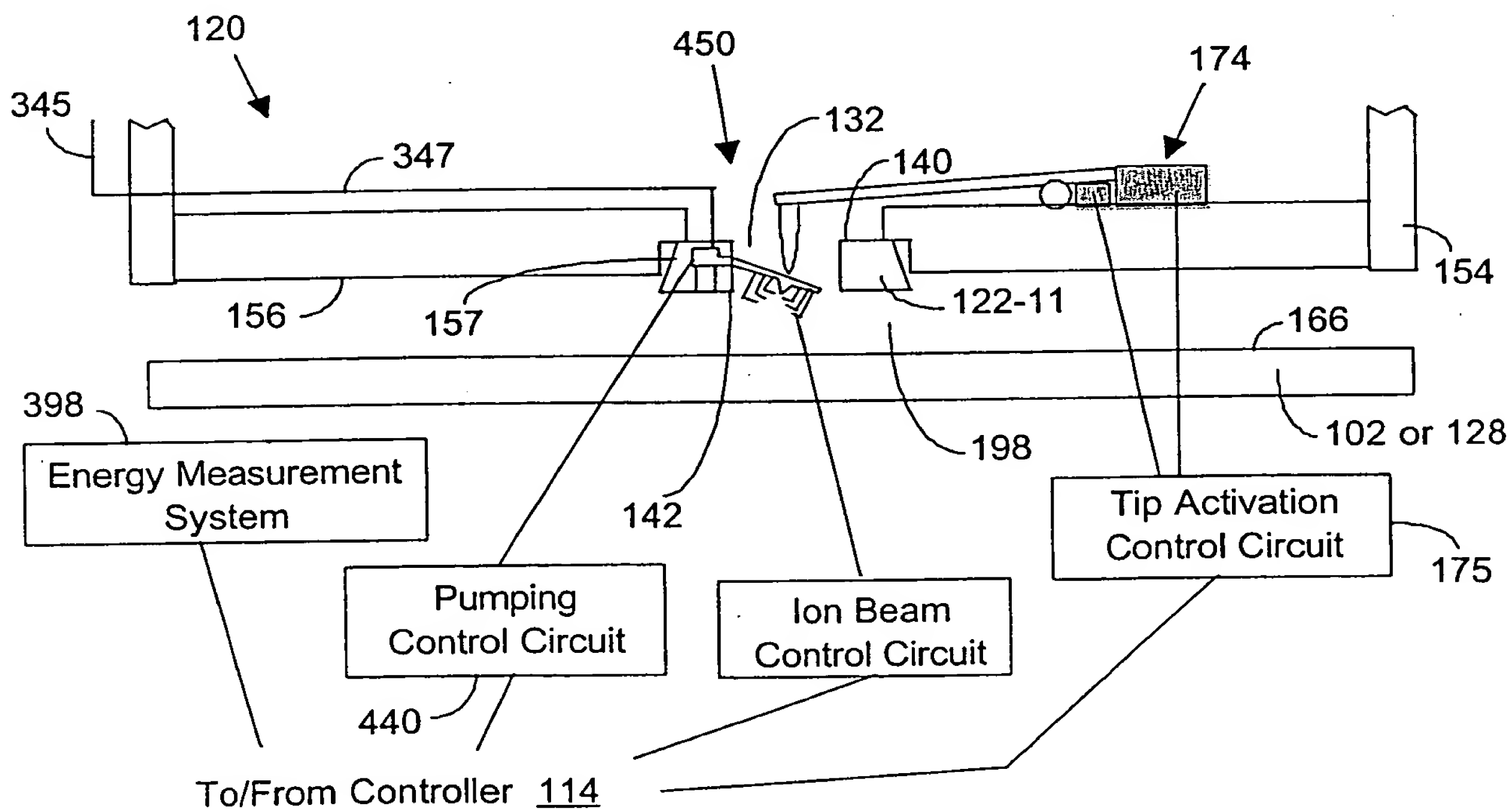
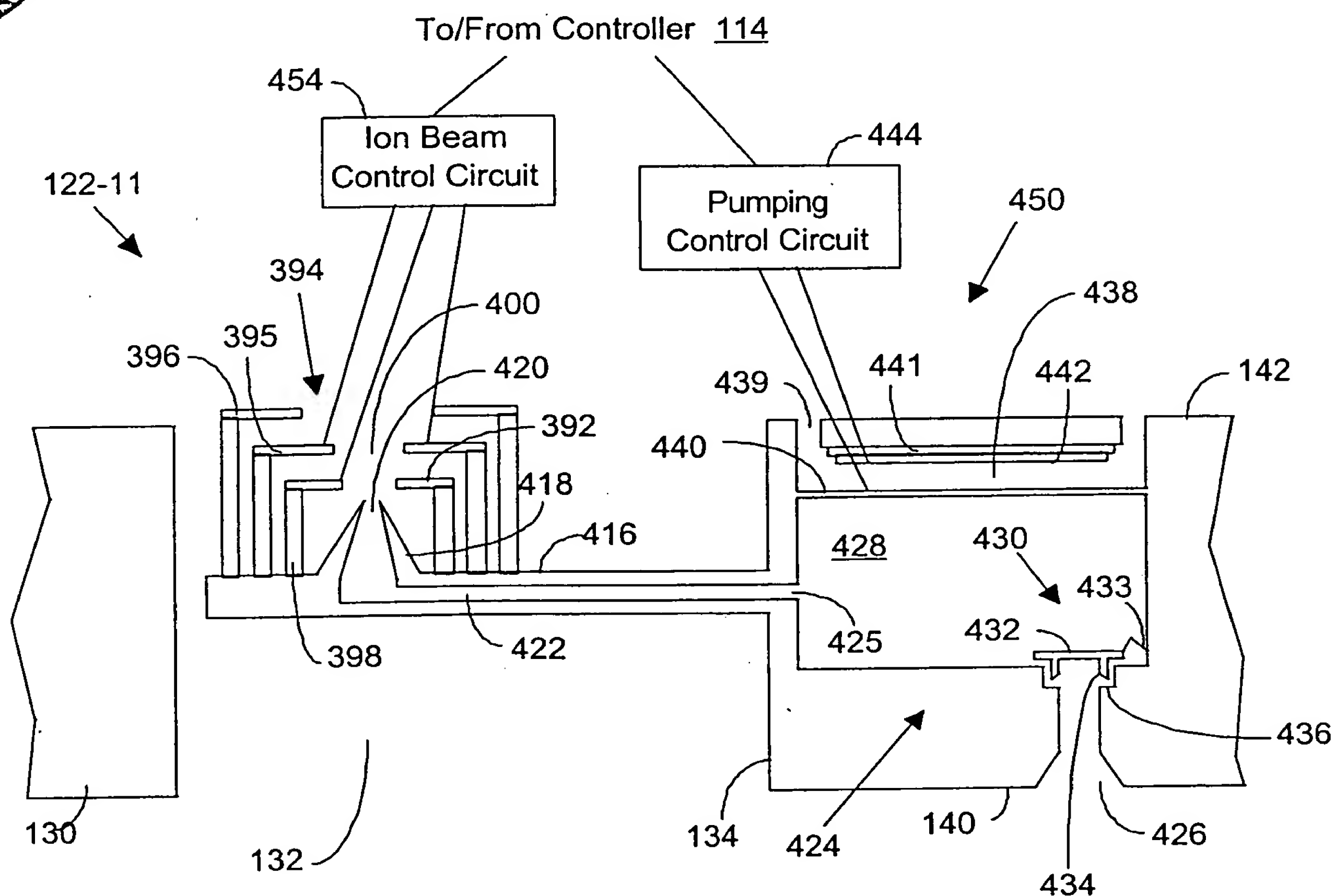
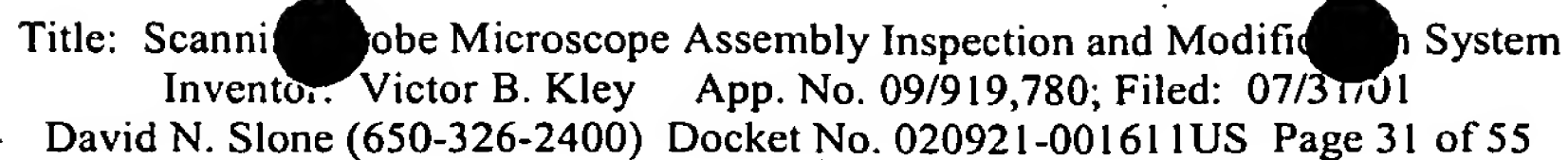


Figure 49



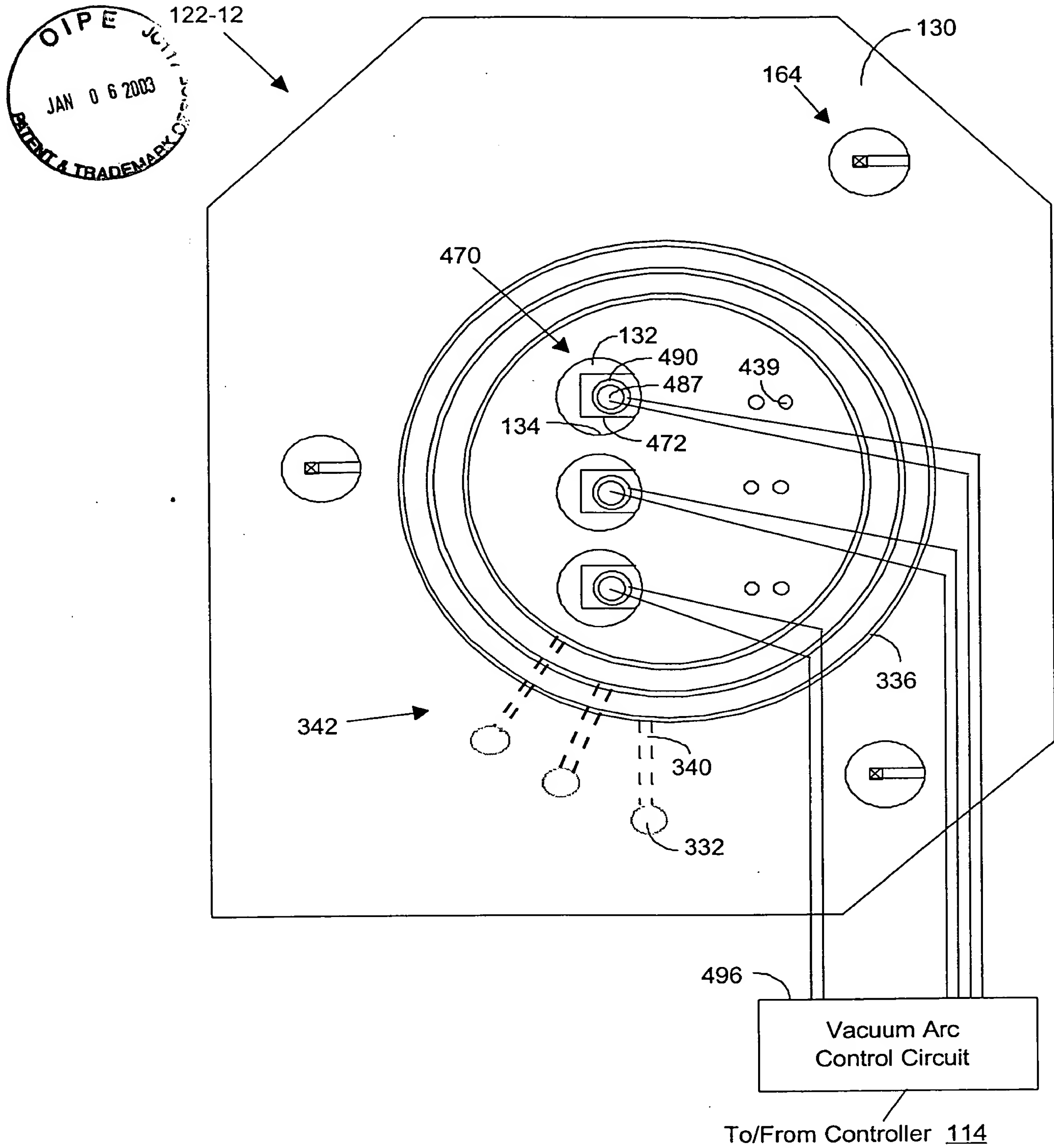


Figure 53

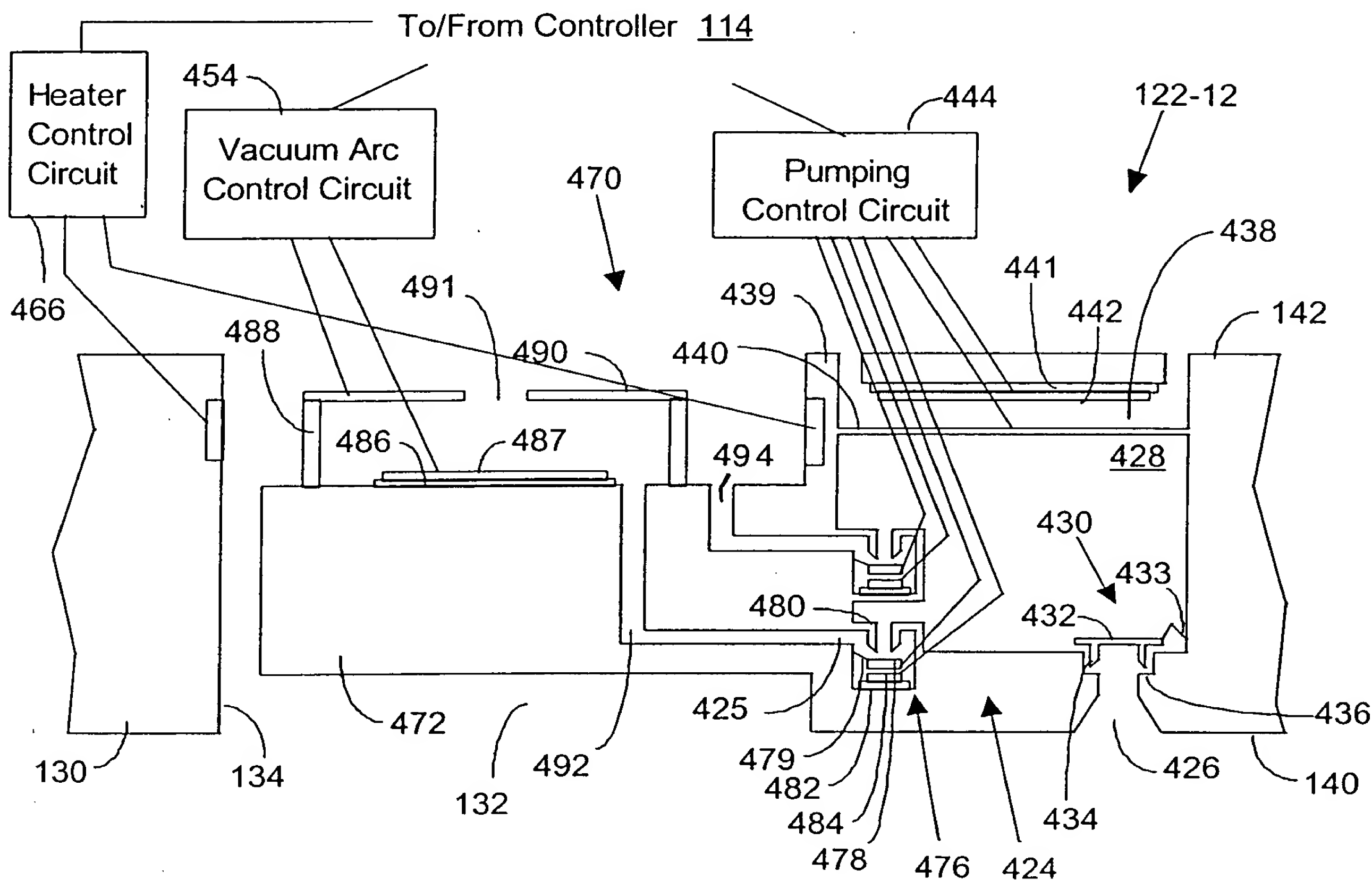
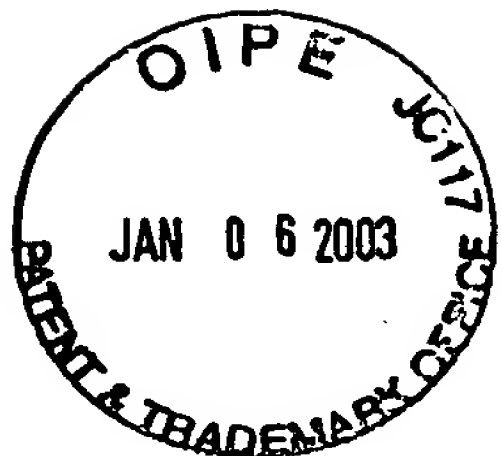


Figure 54

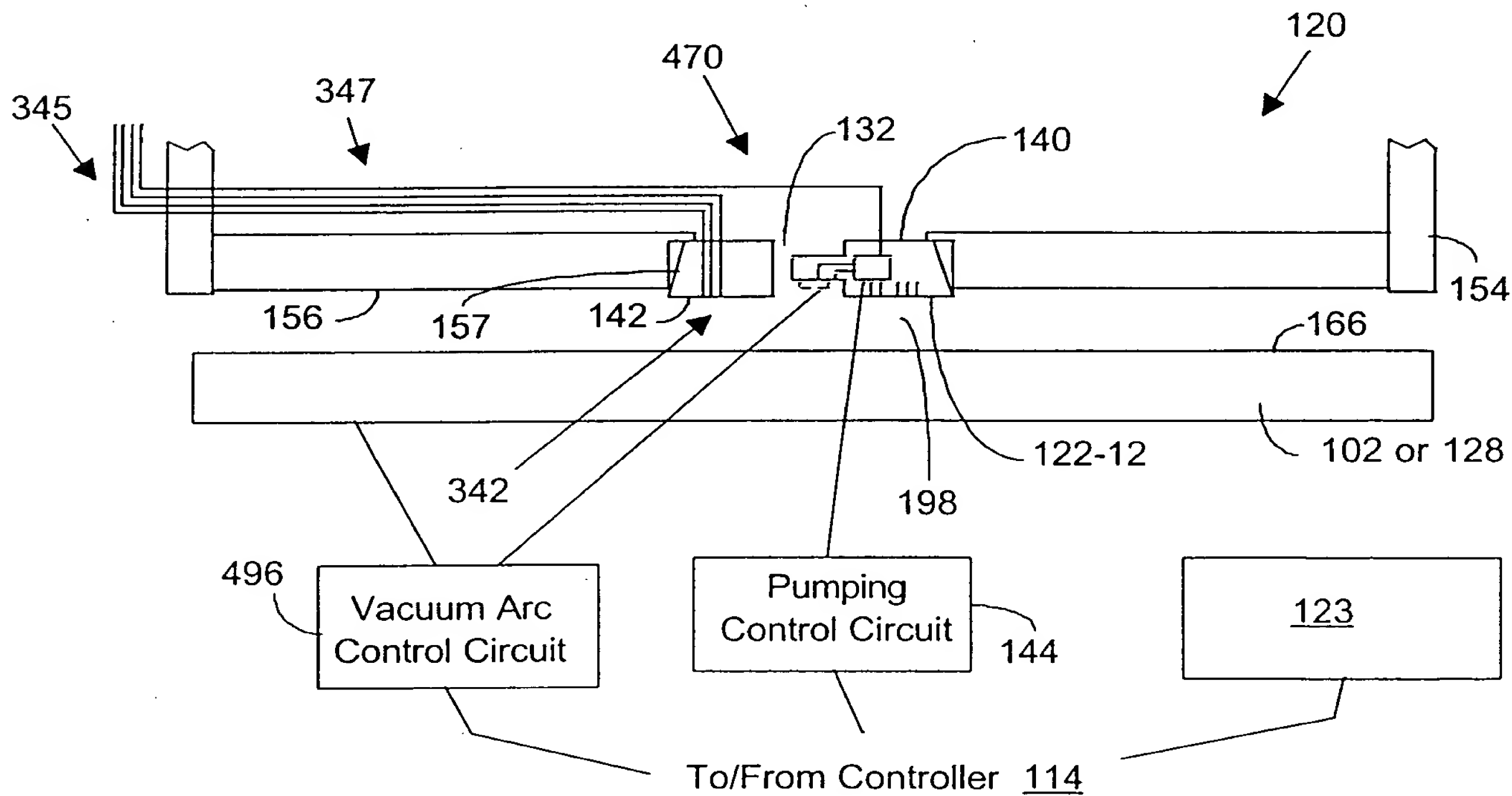


Figure 55

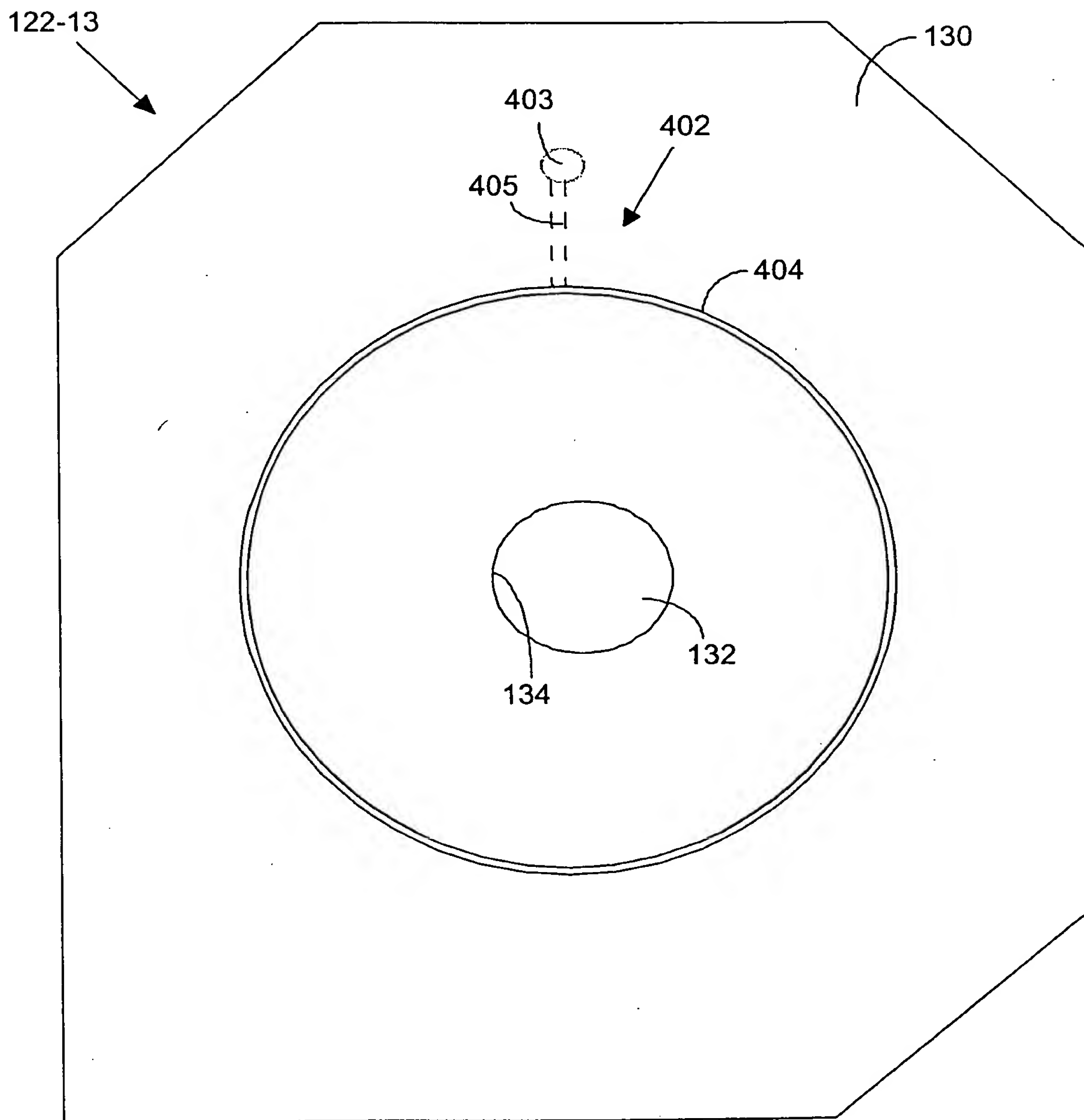


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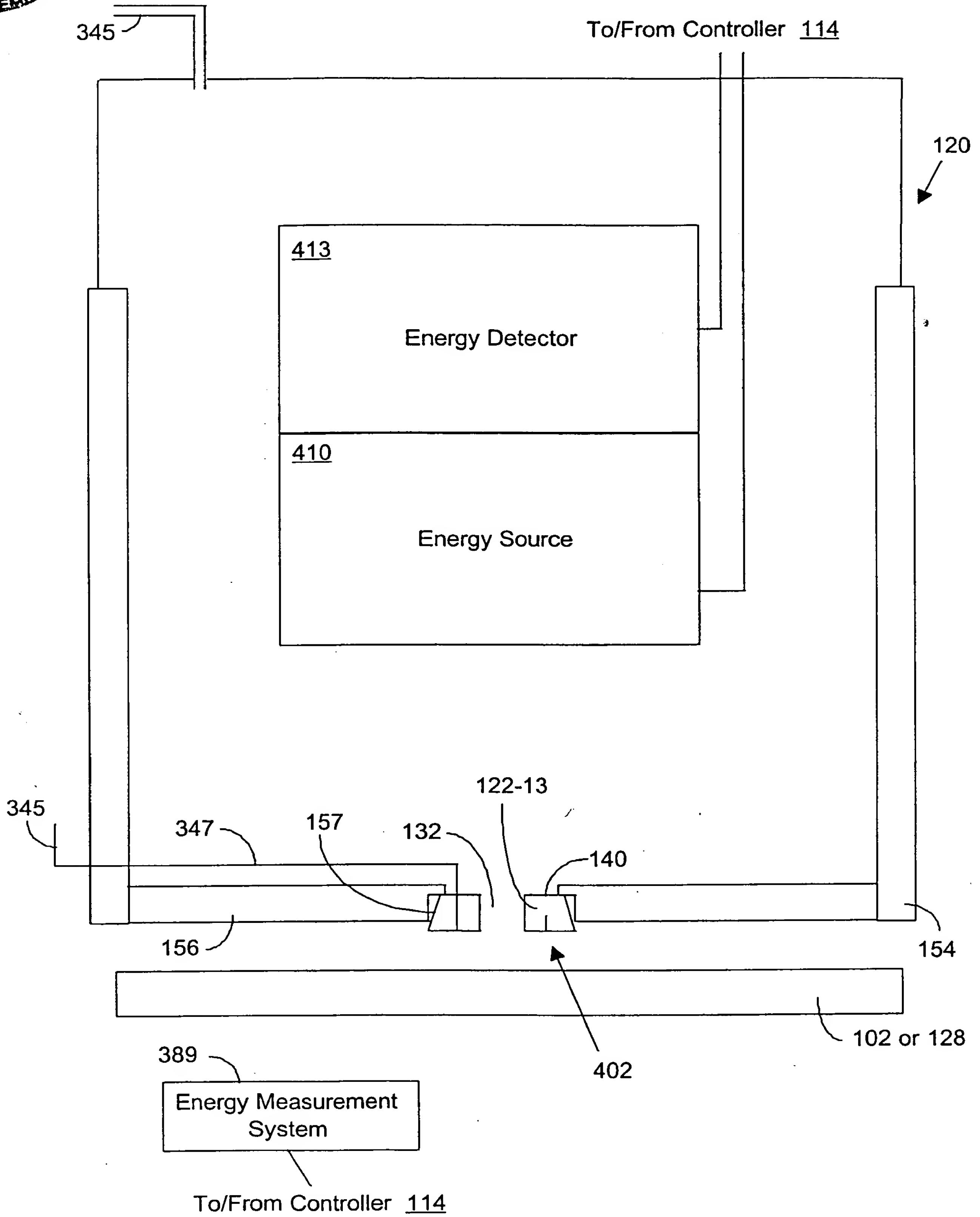


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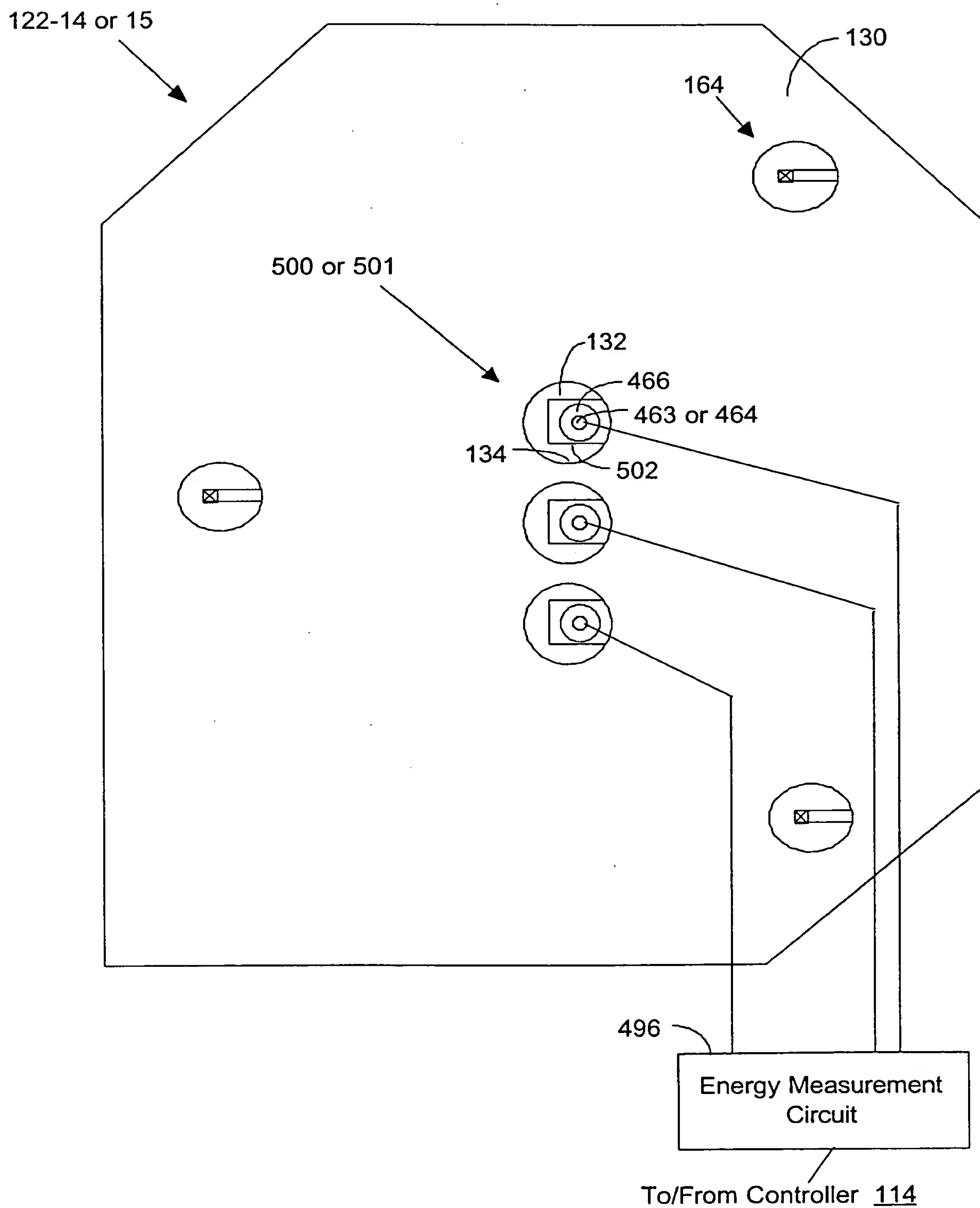
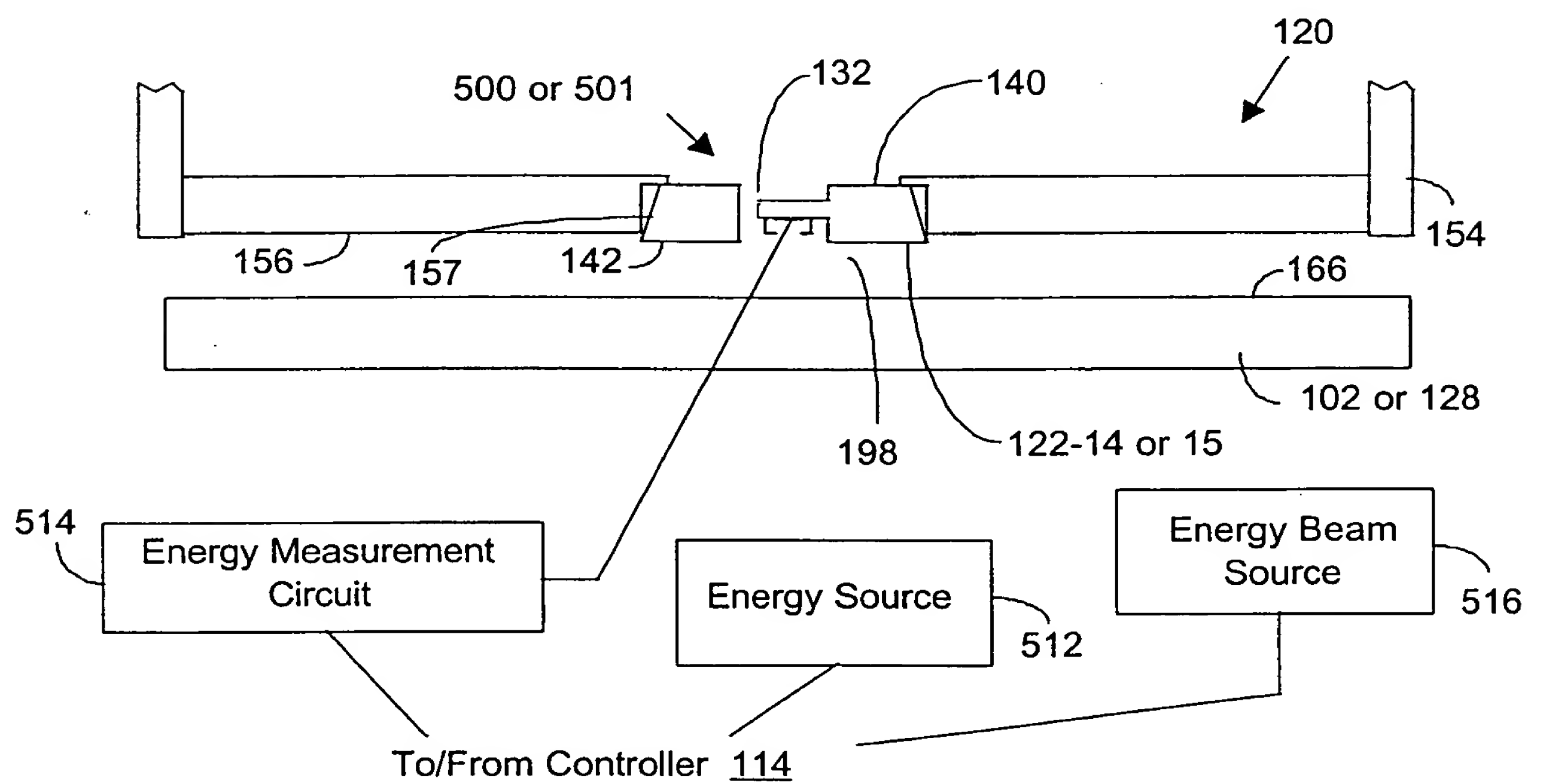
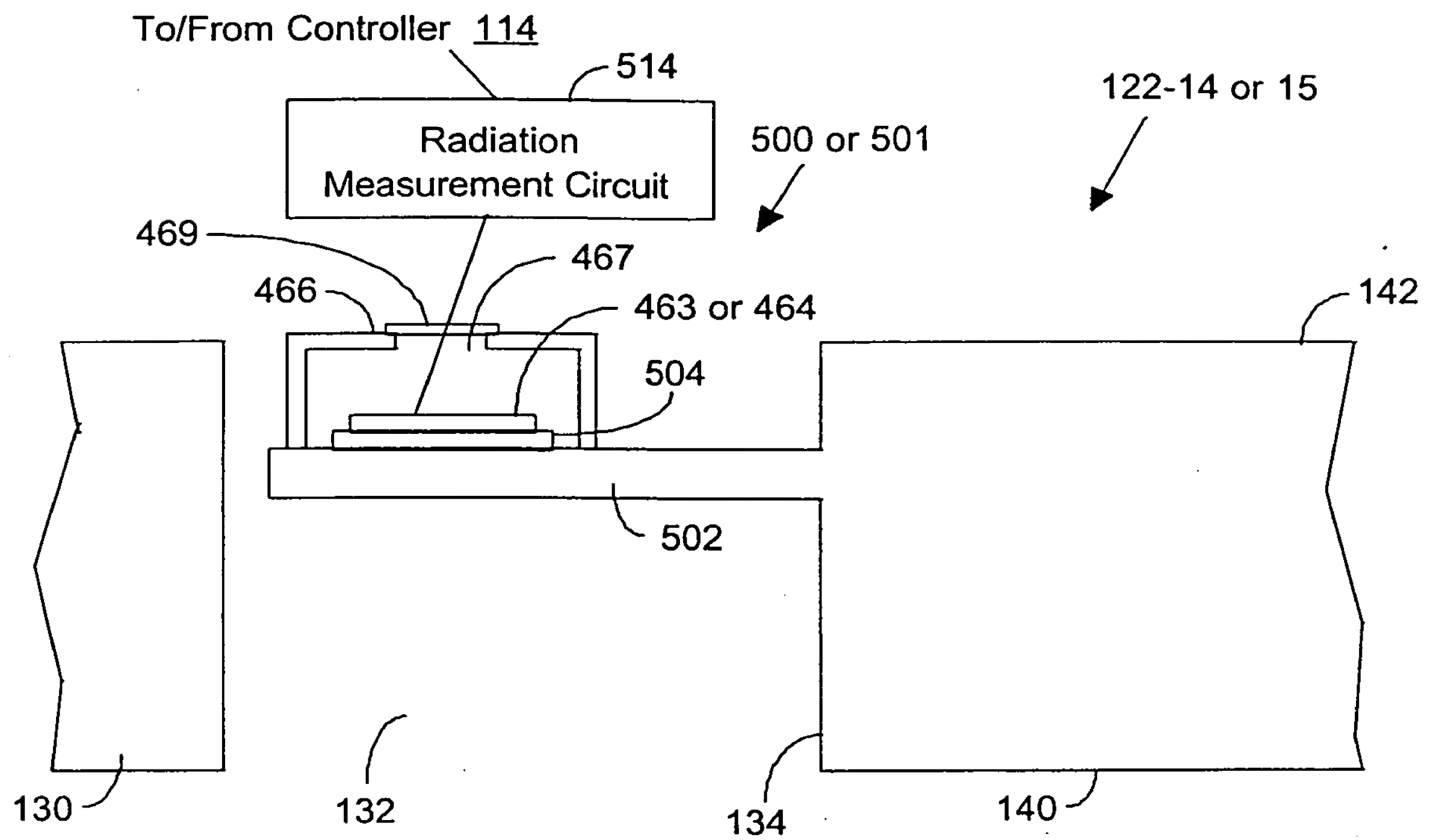
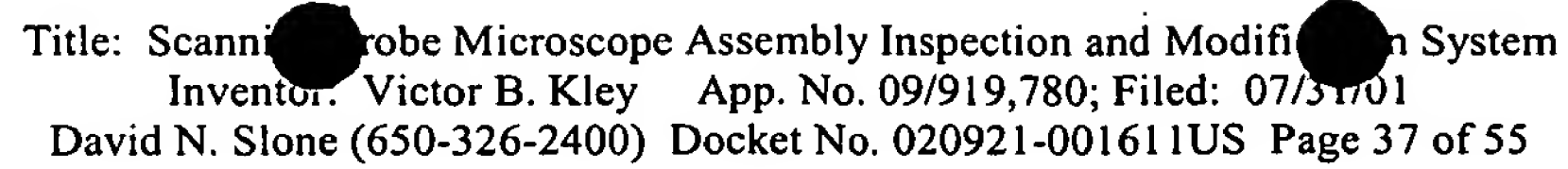


Figure 58



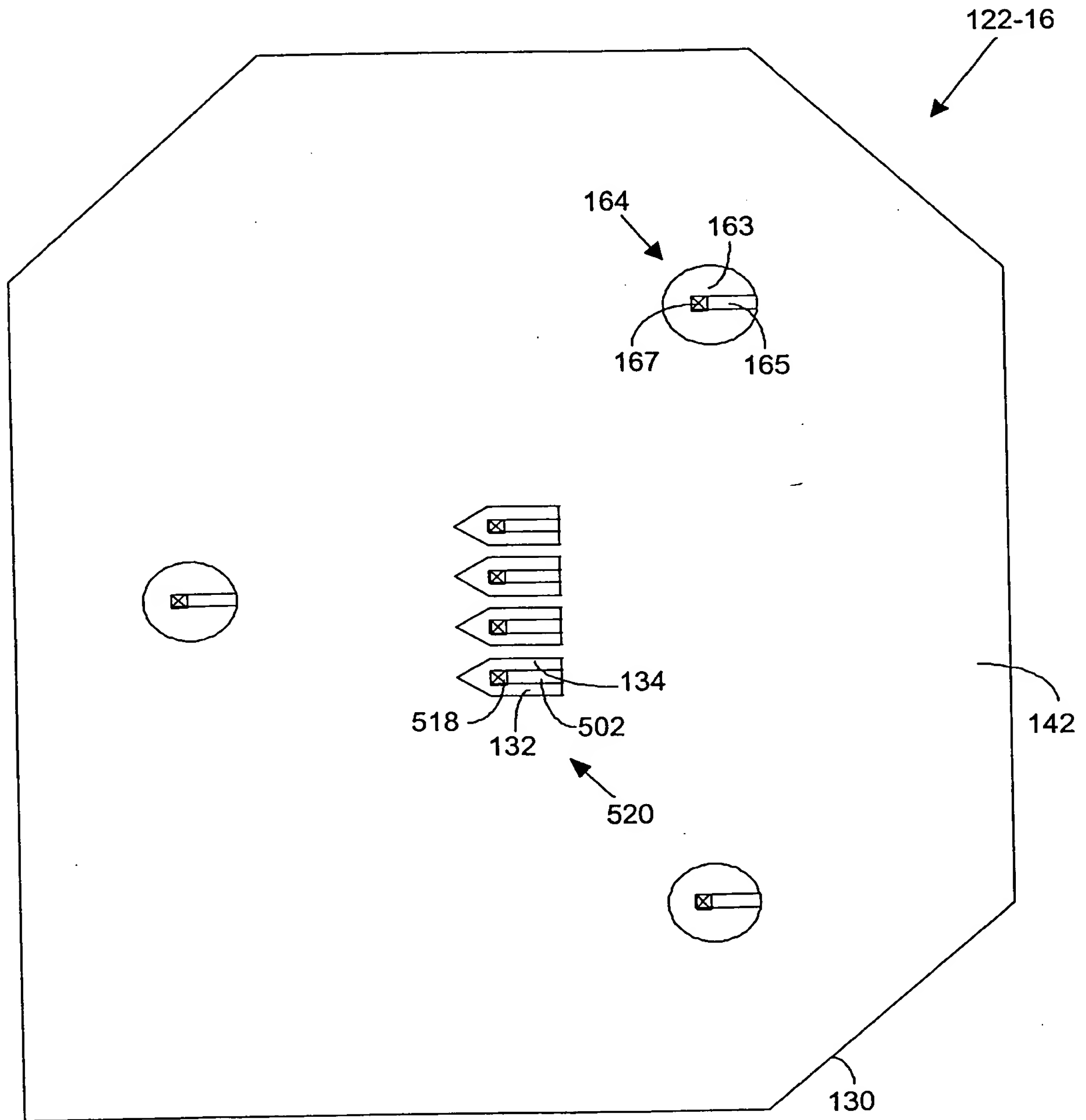
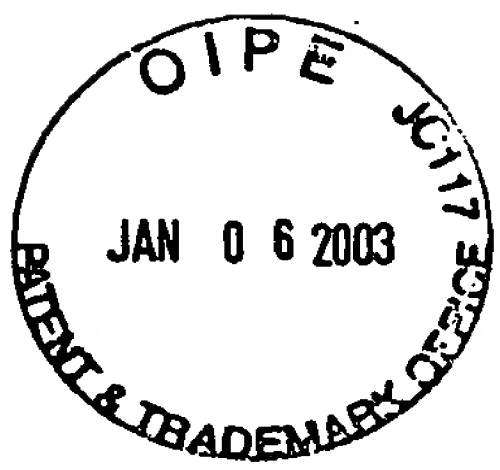


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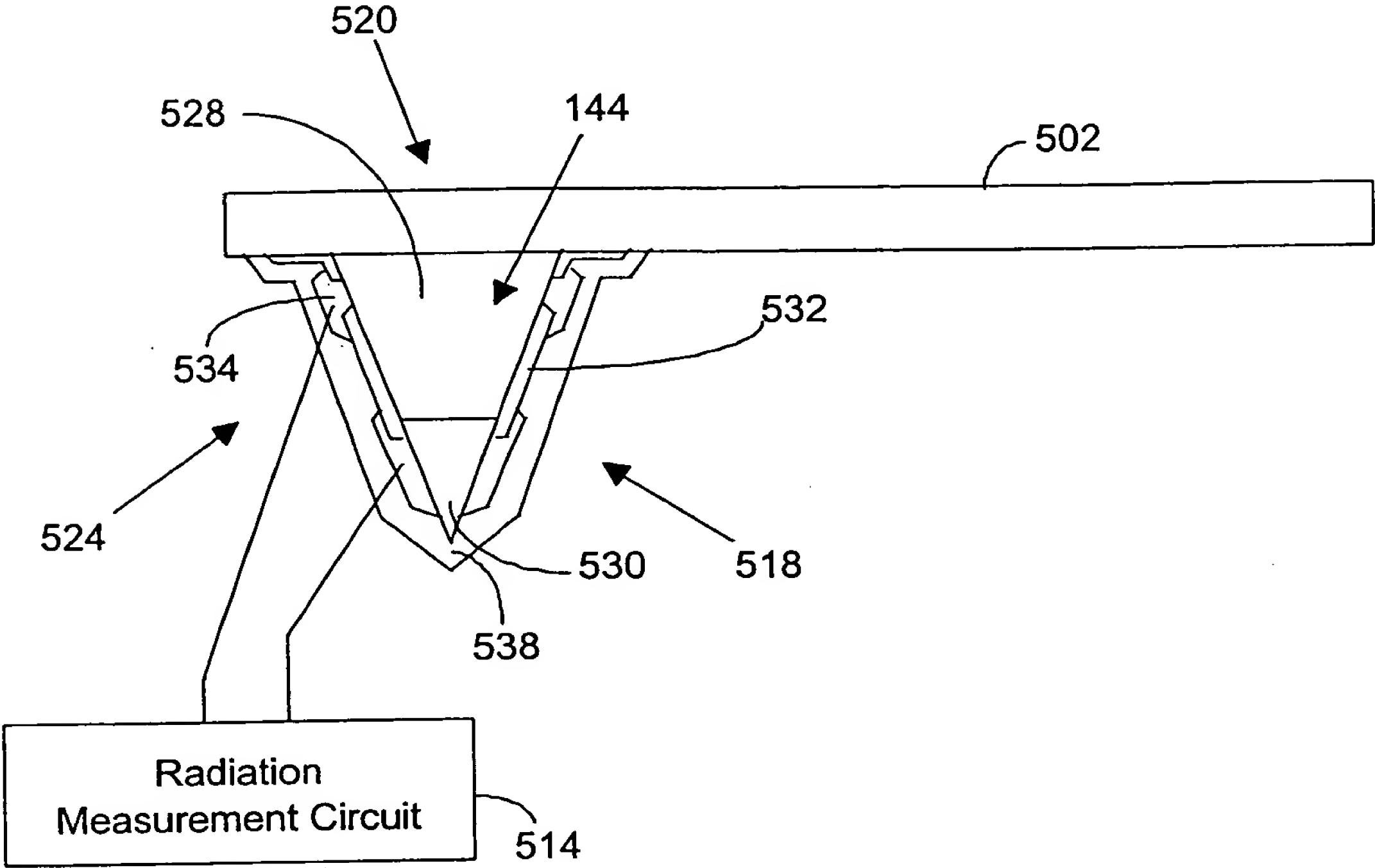
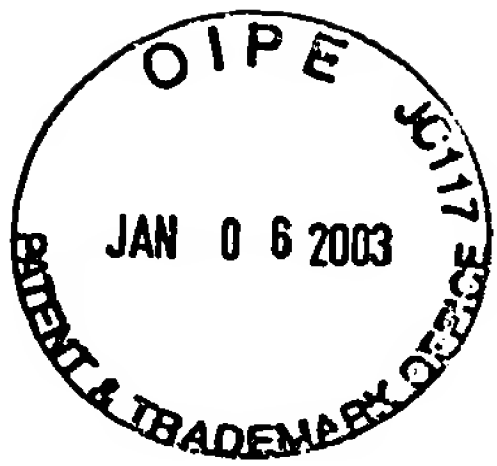


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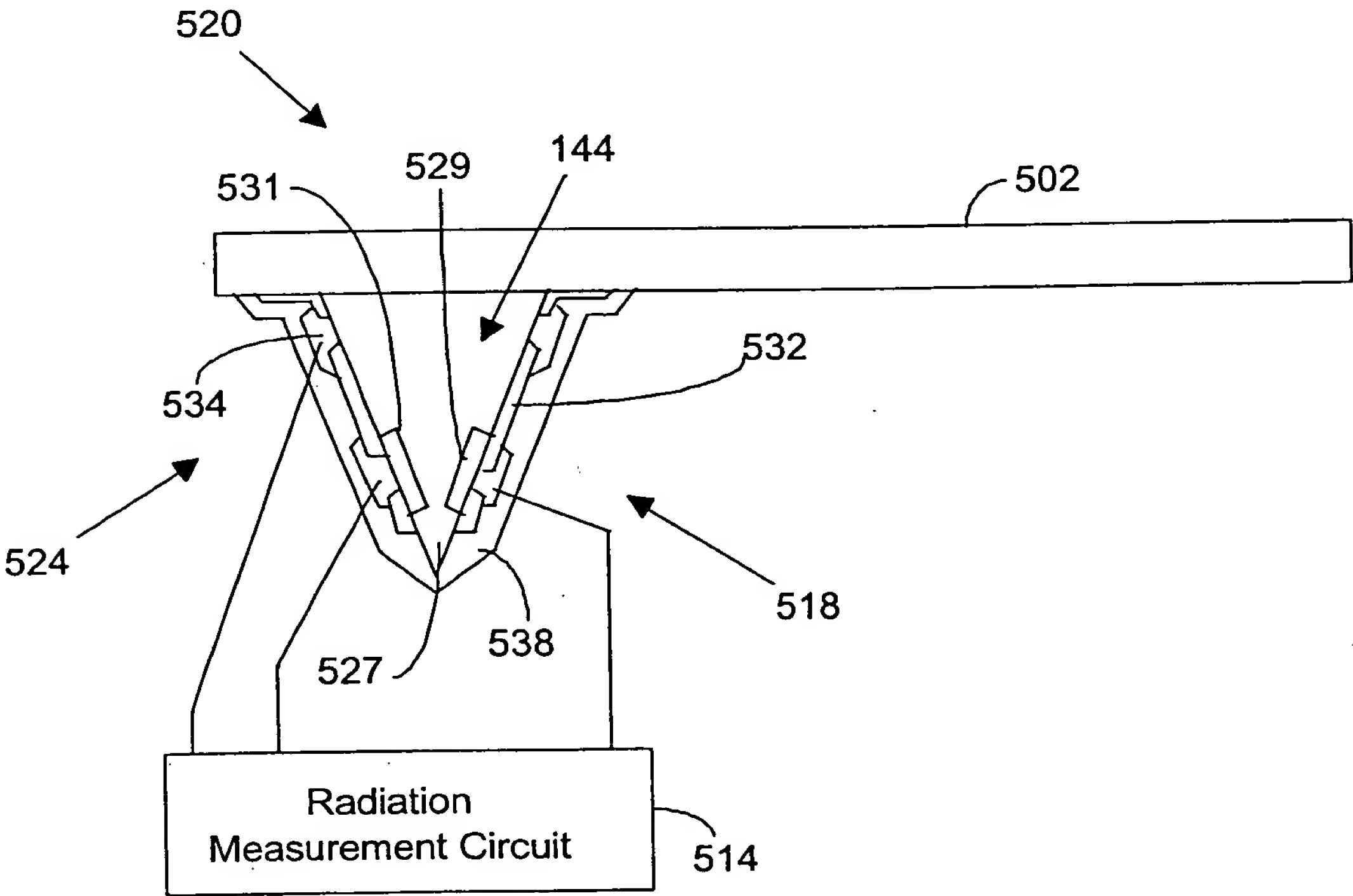
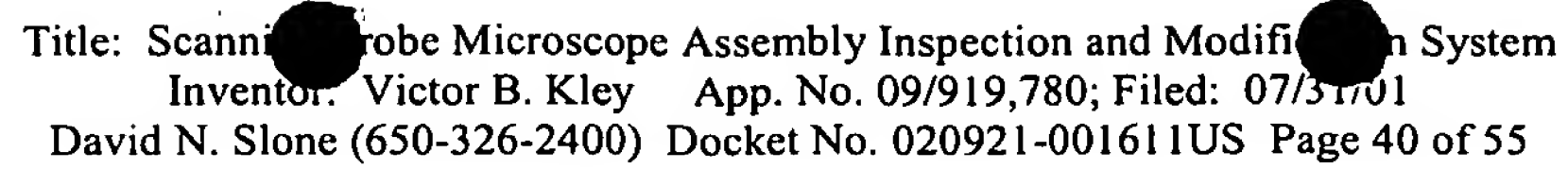
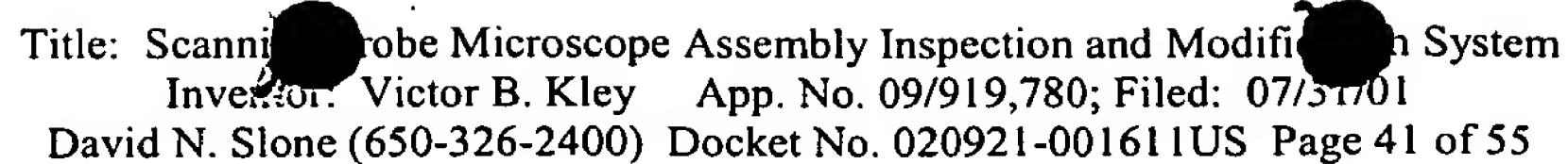


Figure 63





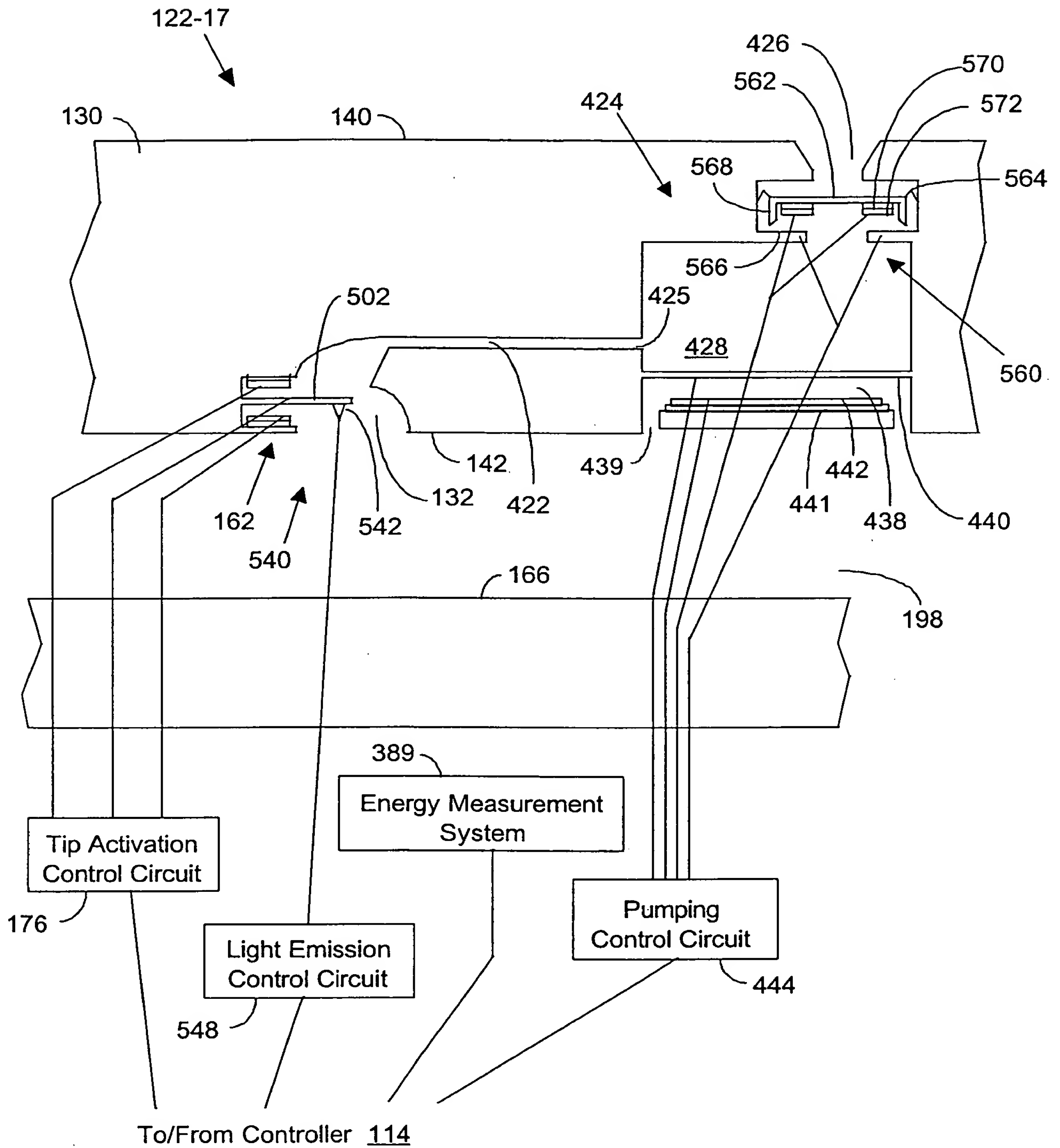
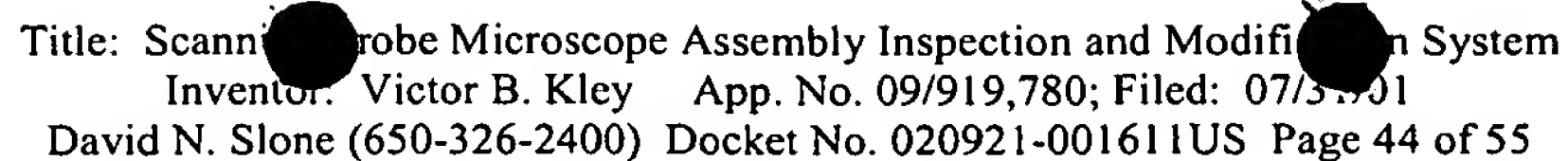


Figure 67



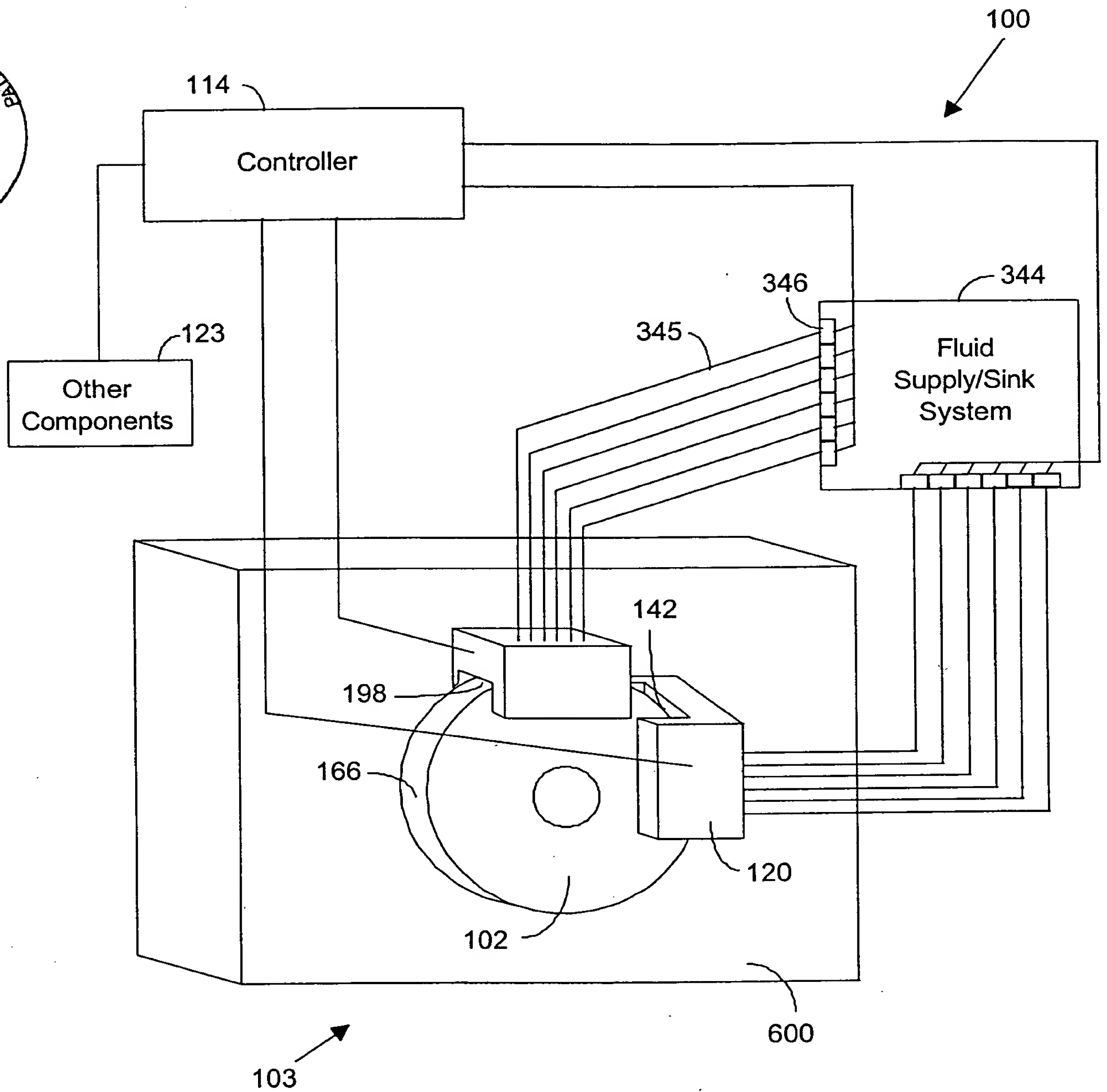
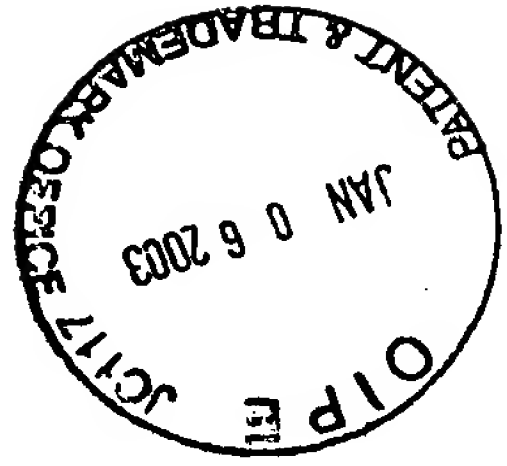


Figure 71

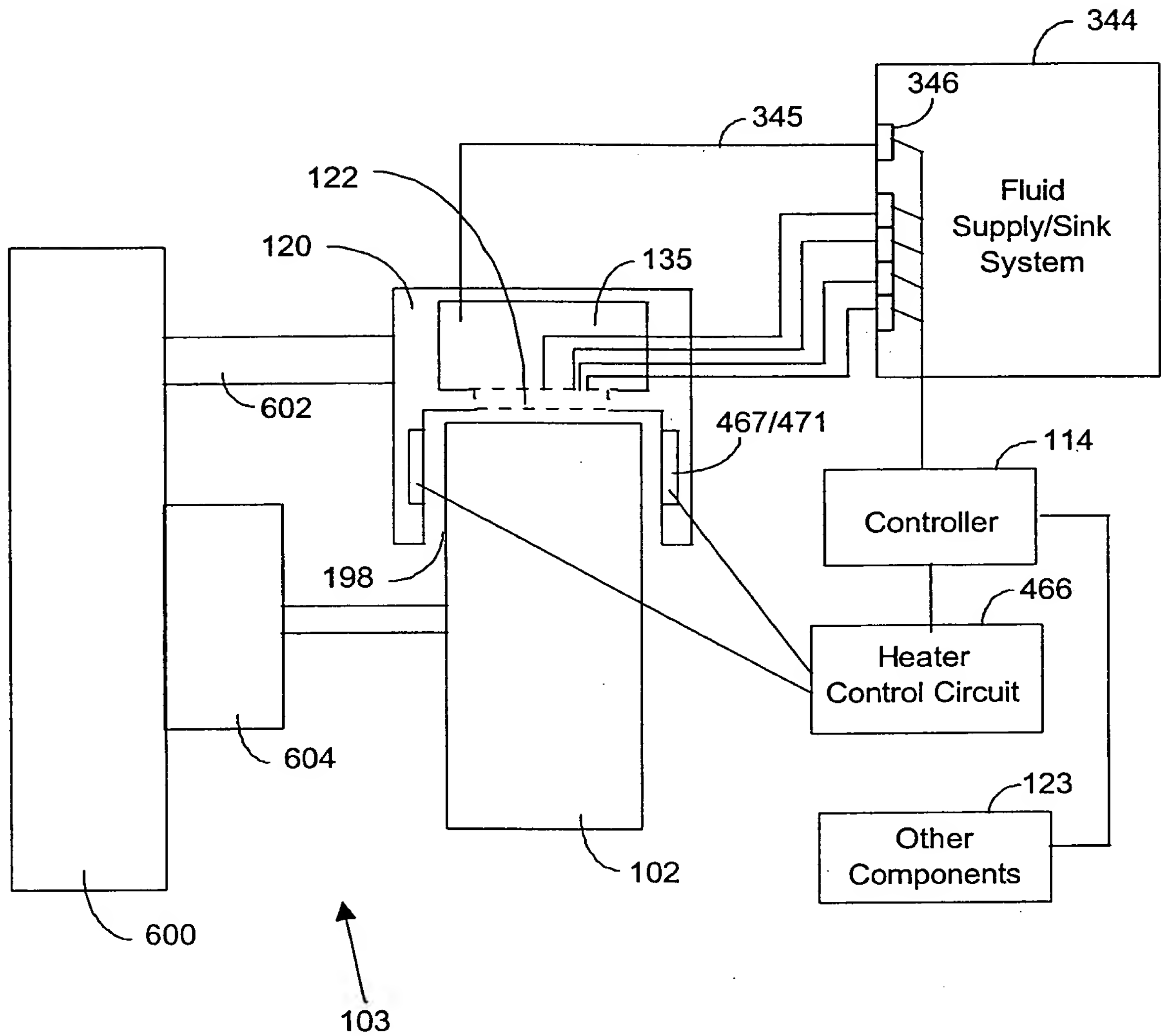
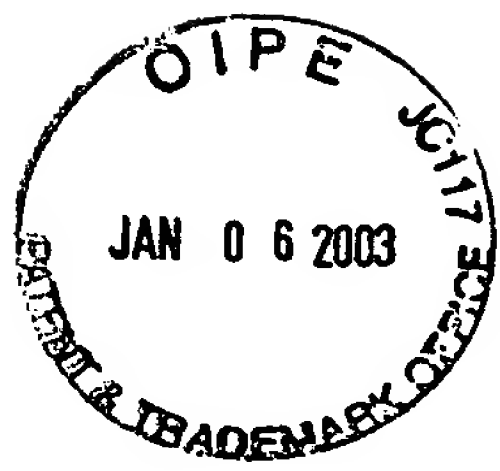


Figure 72

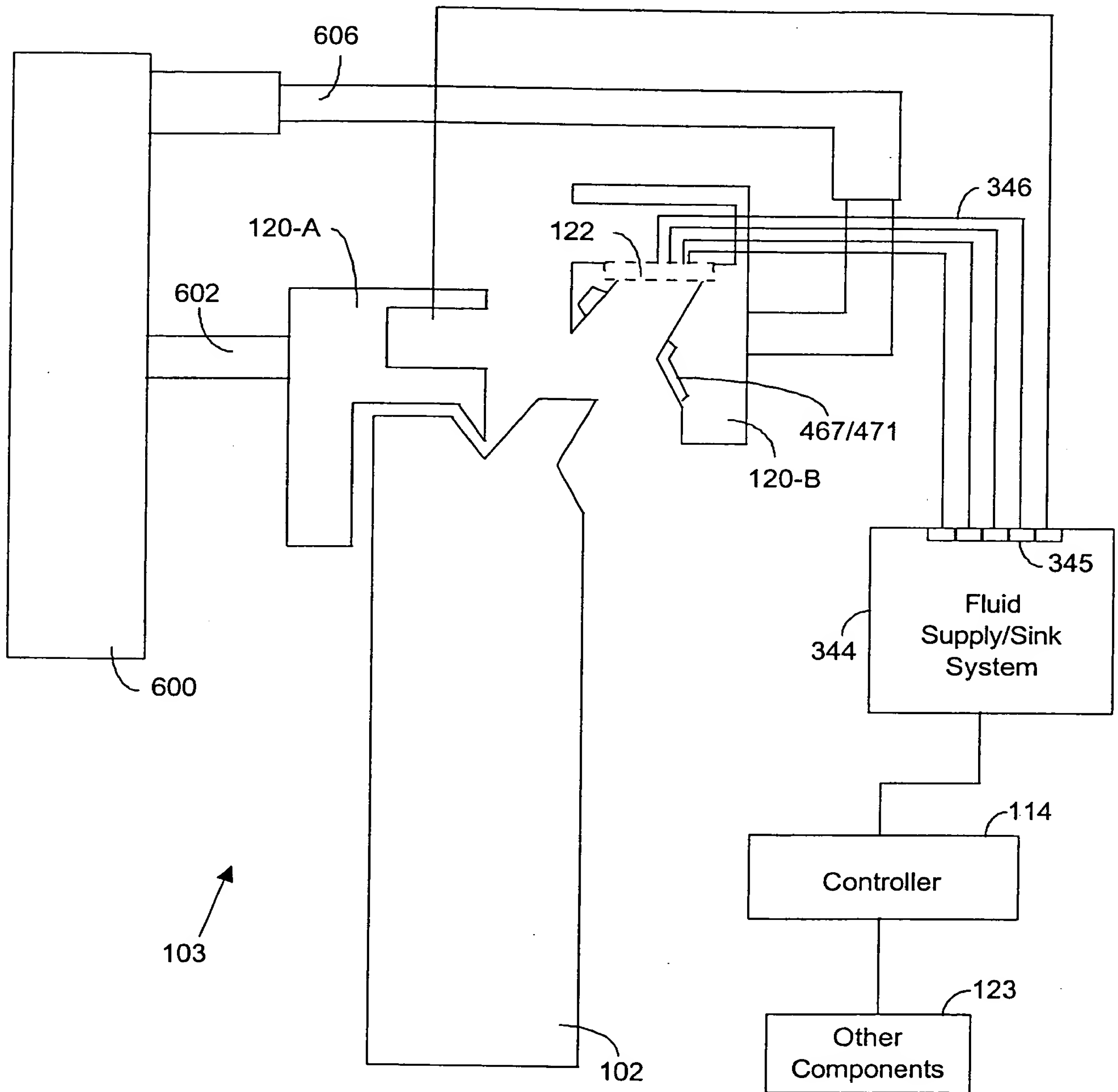


Figure 73

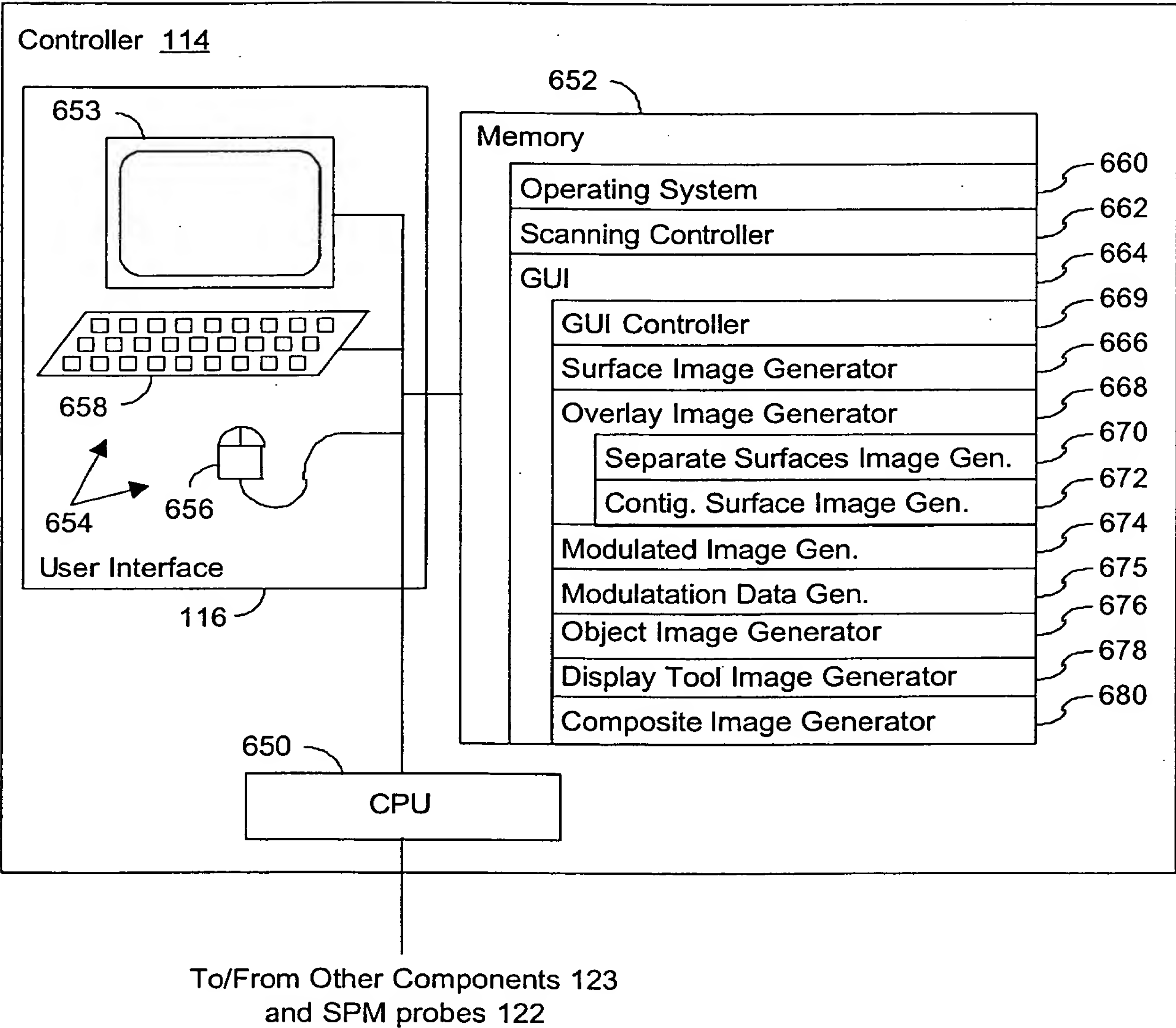


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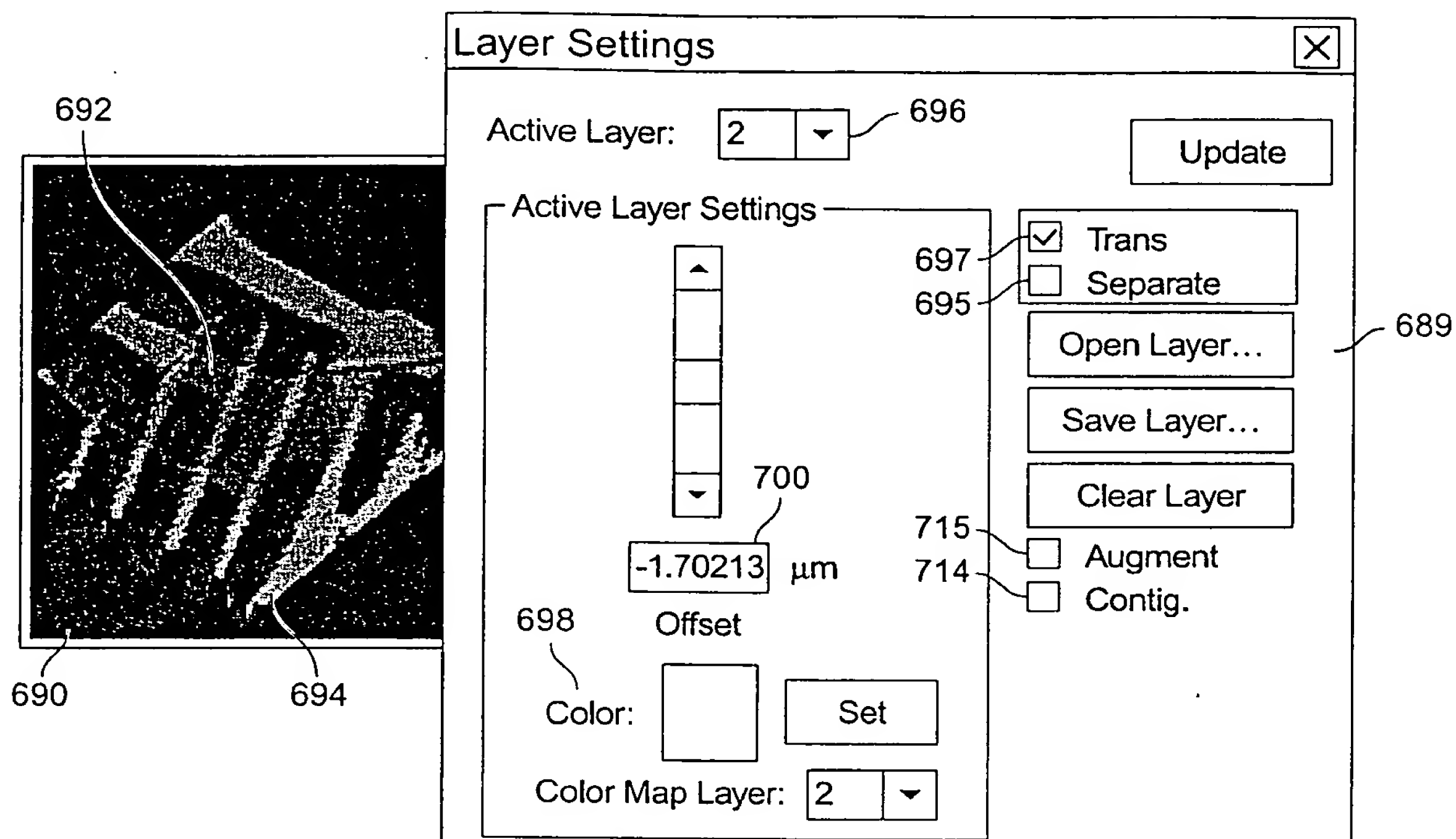


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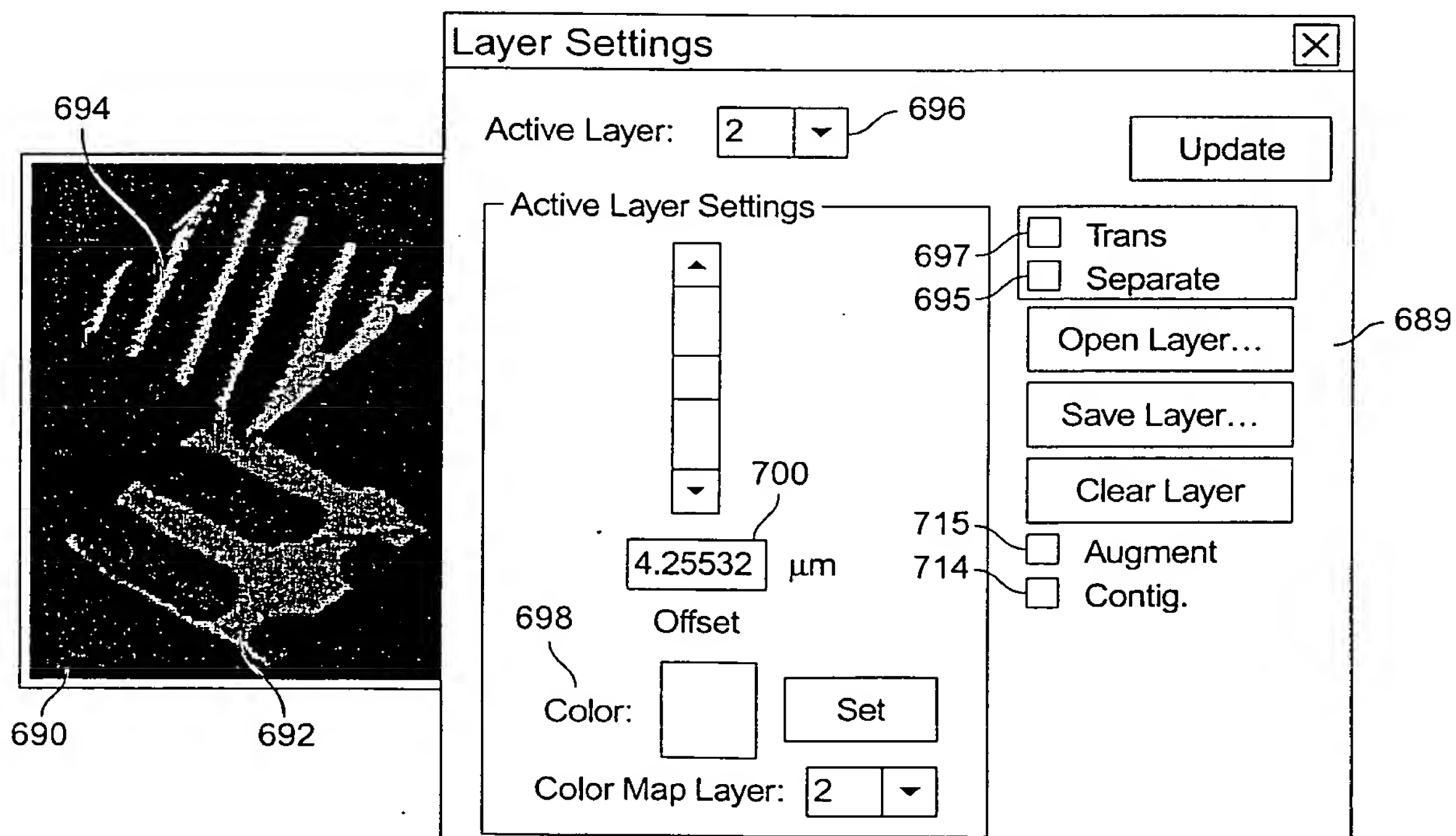


Figure 76

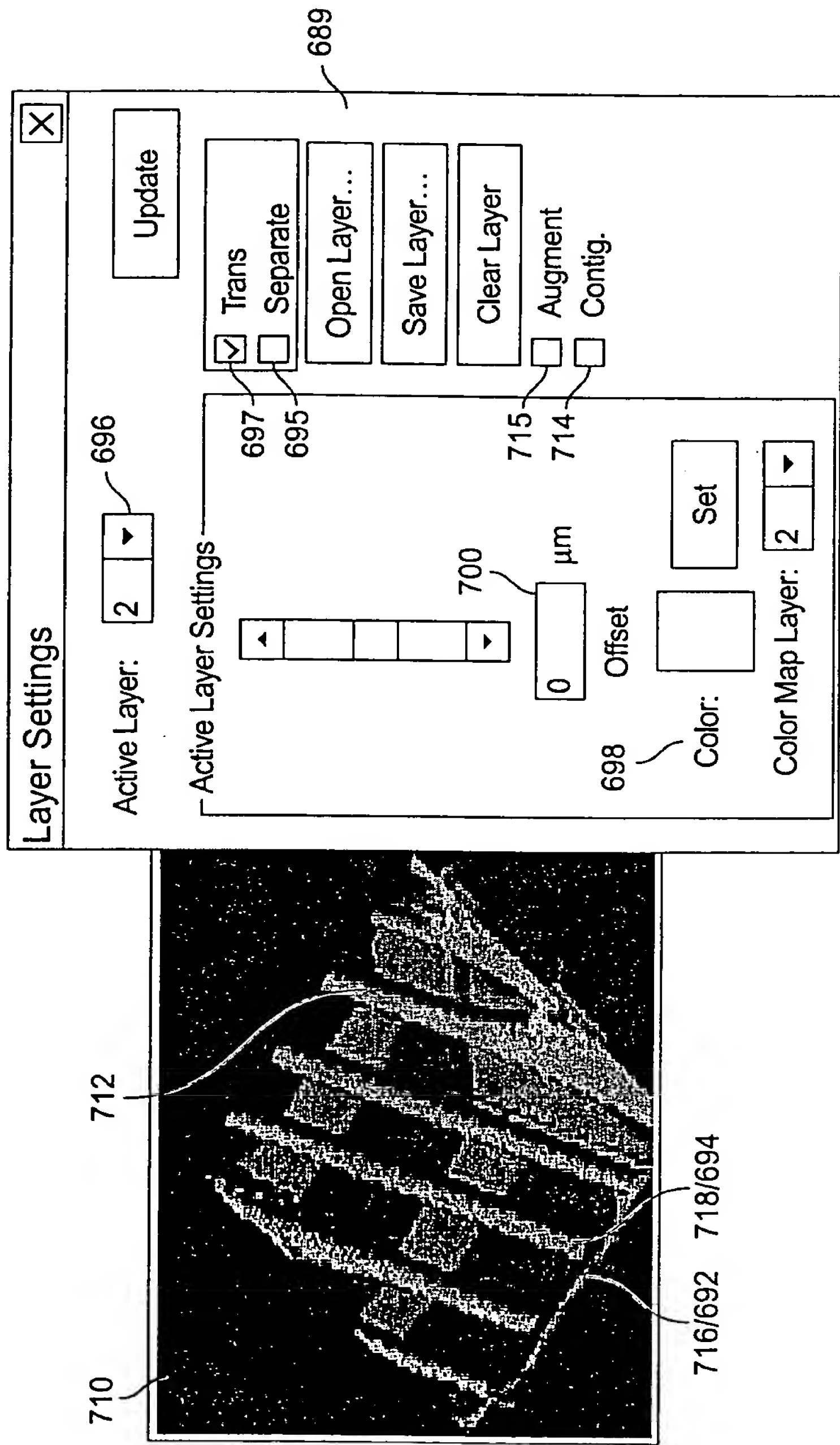


Figure 77



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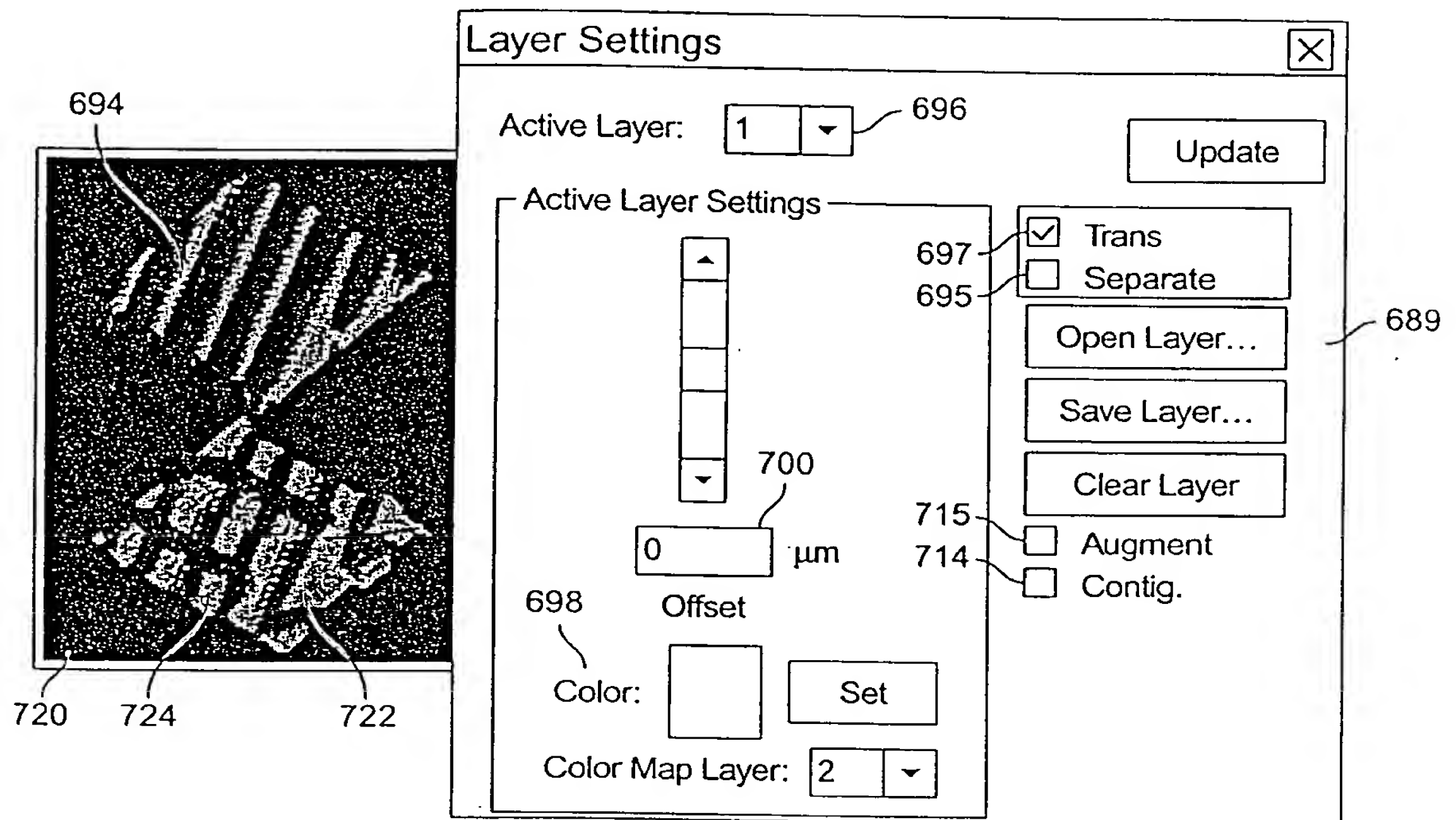


Figure 78

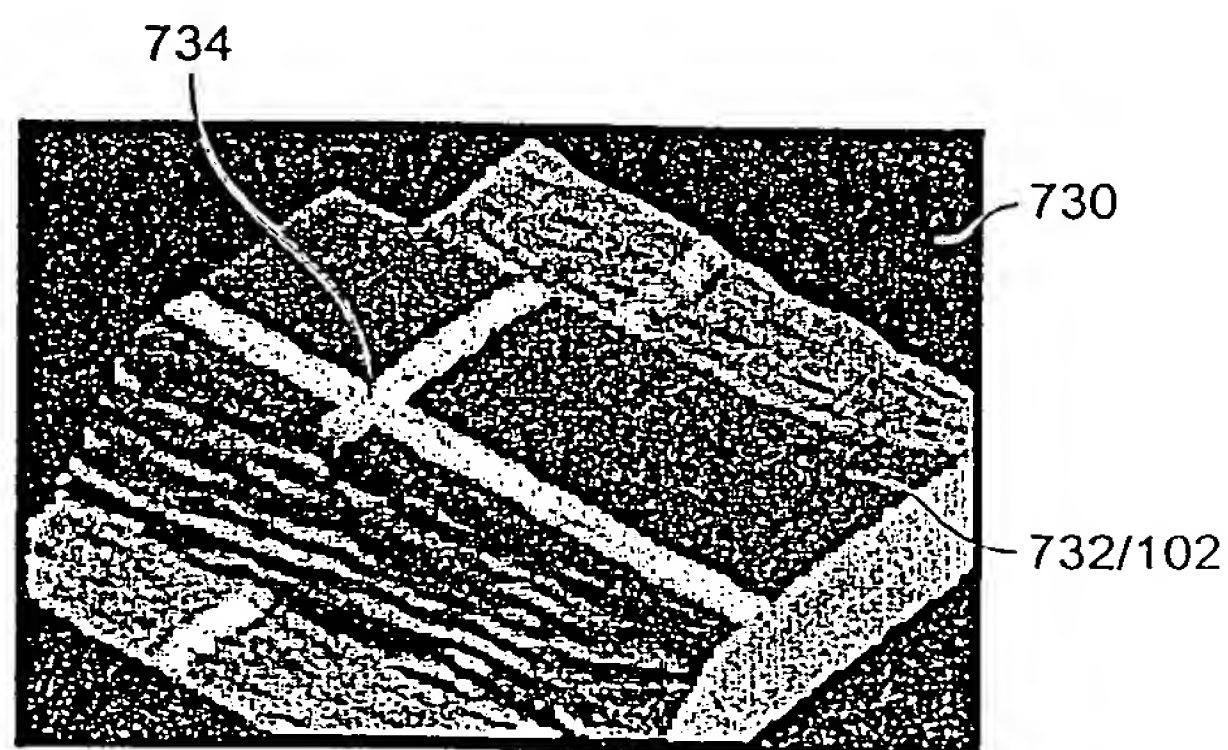


Figure 79

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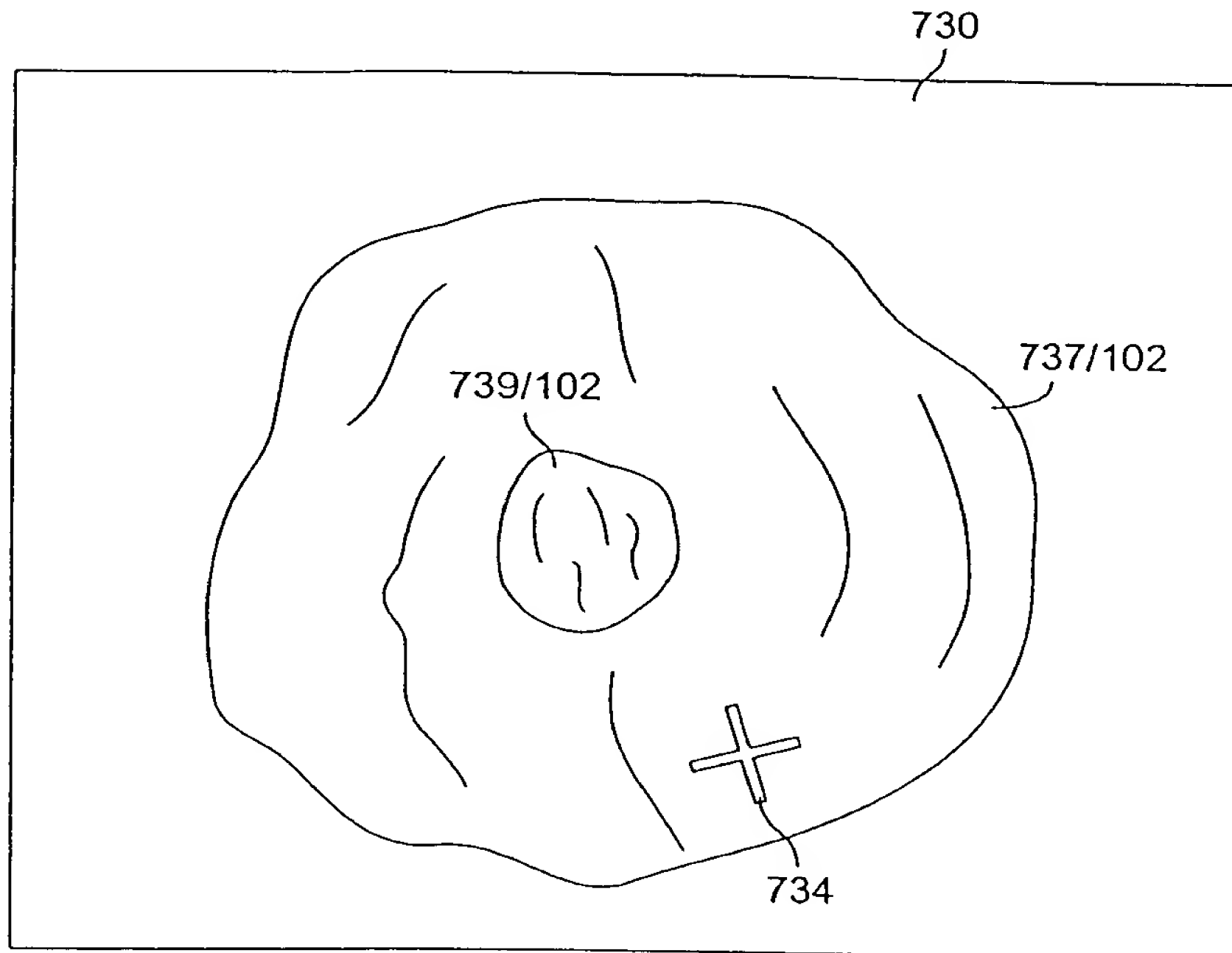


Figure 80

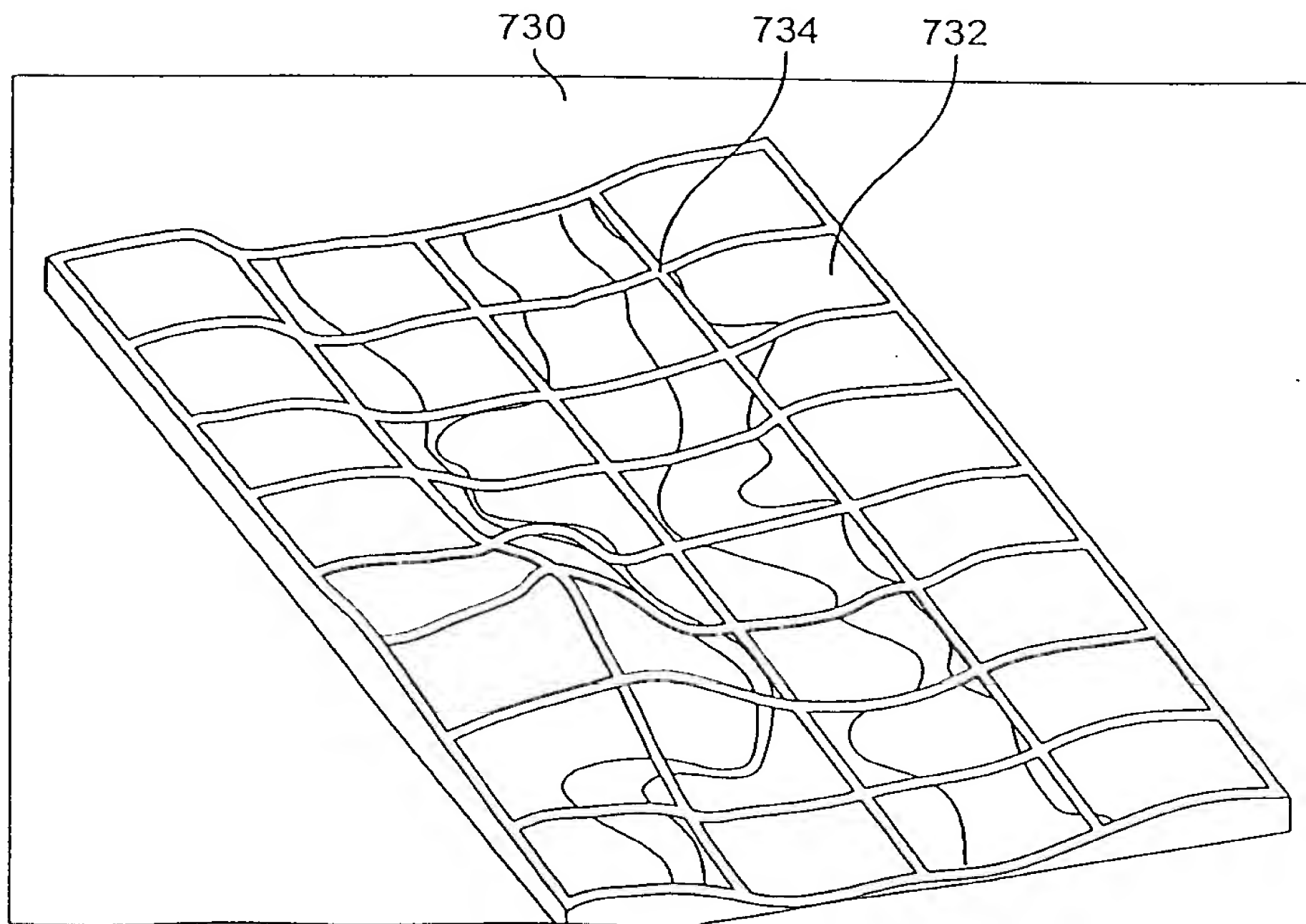


Figure 81

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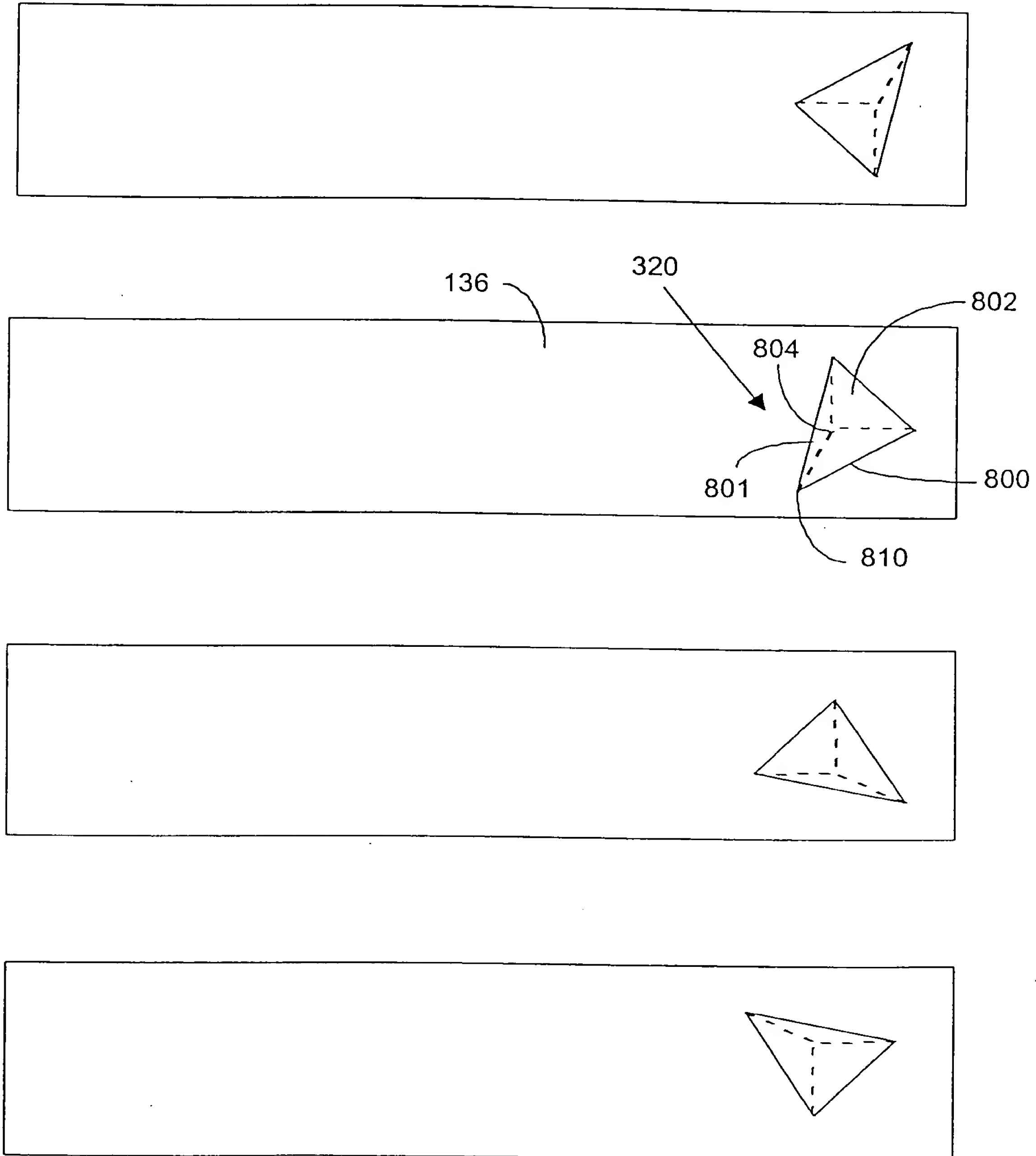


Figure 82

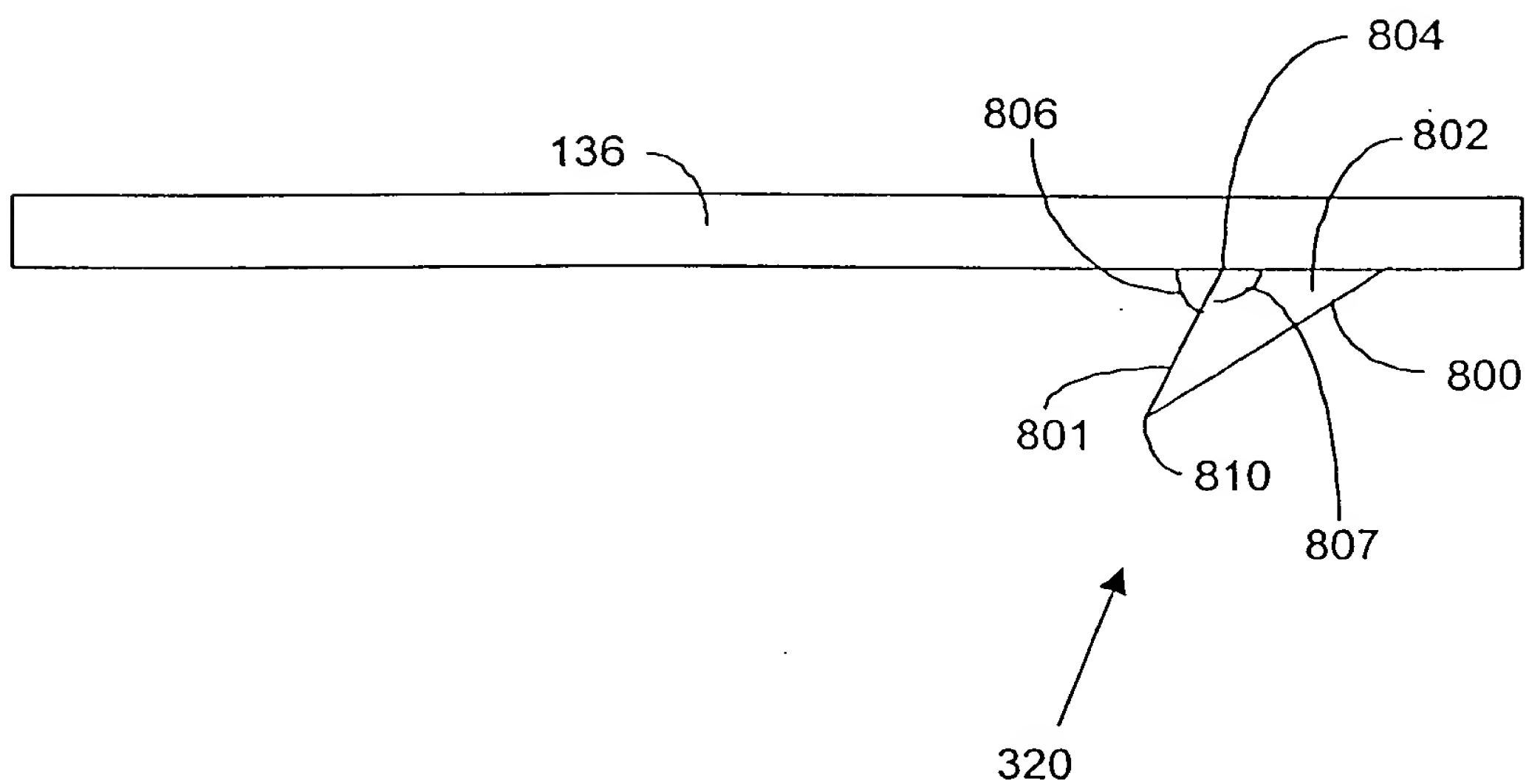


Figure 83

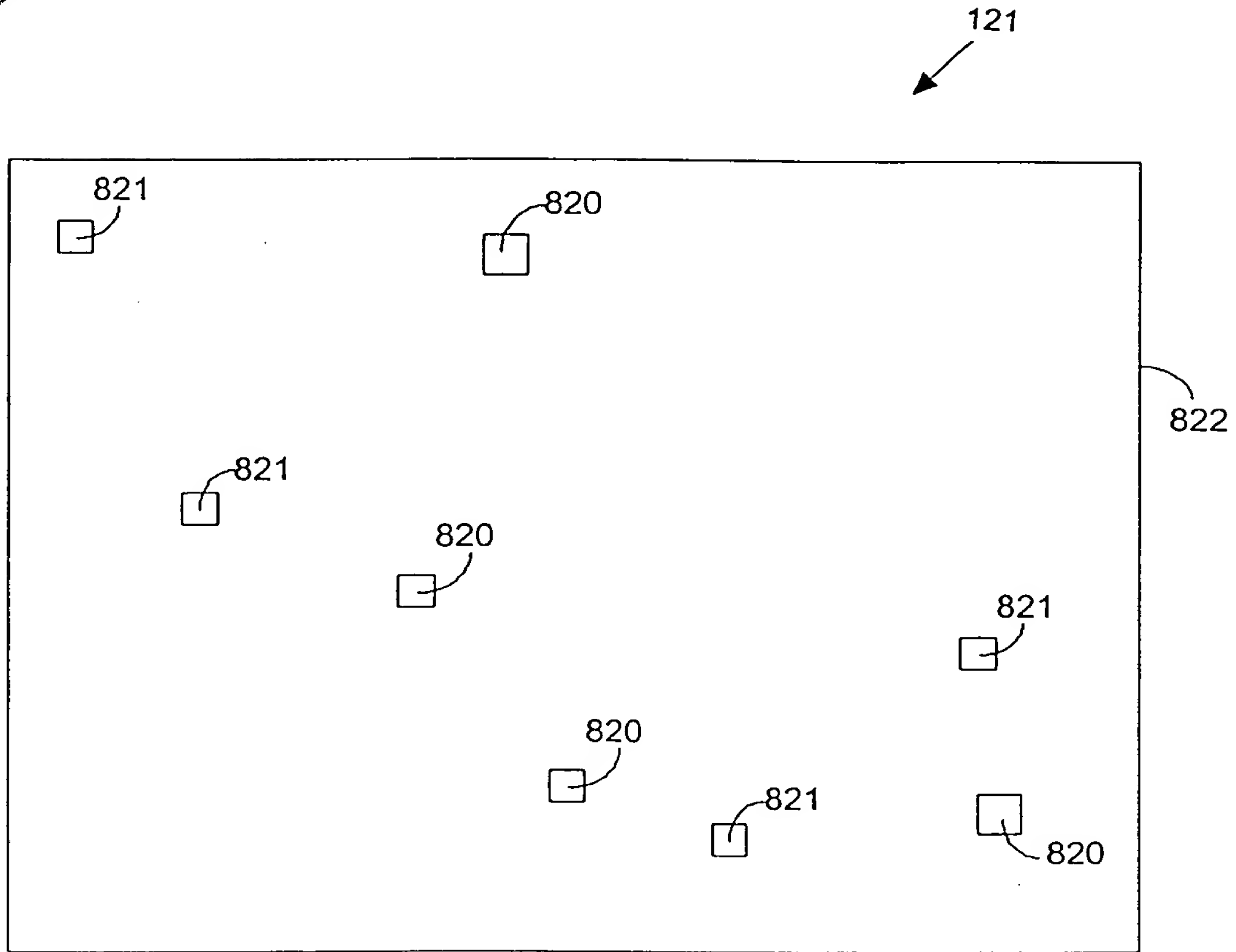
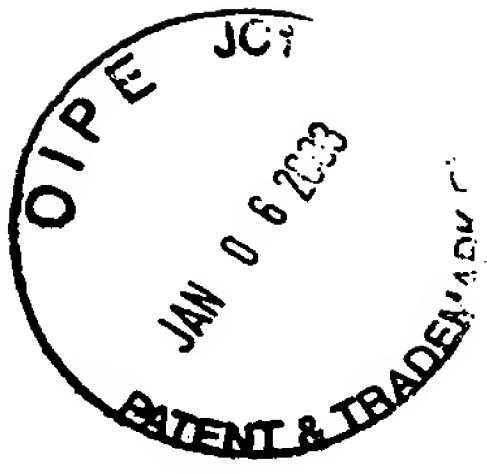


Figure 84

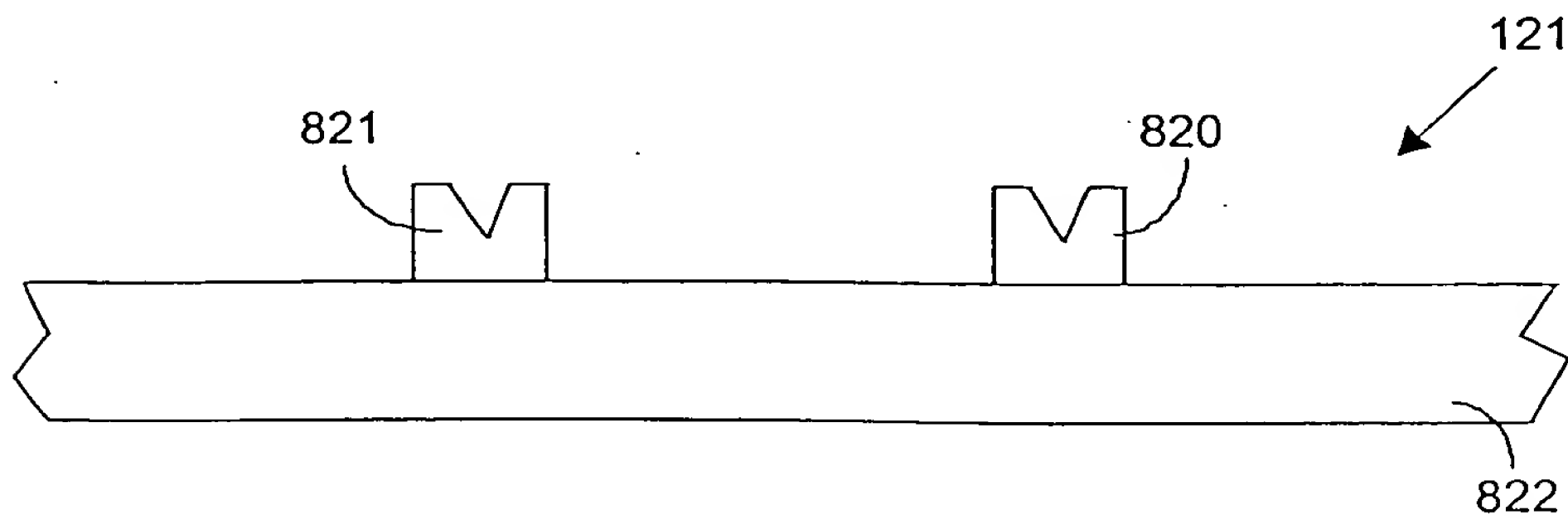


Figure 85

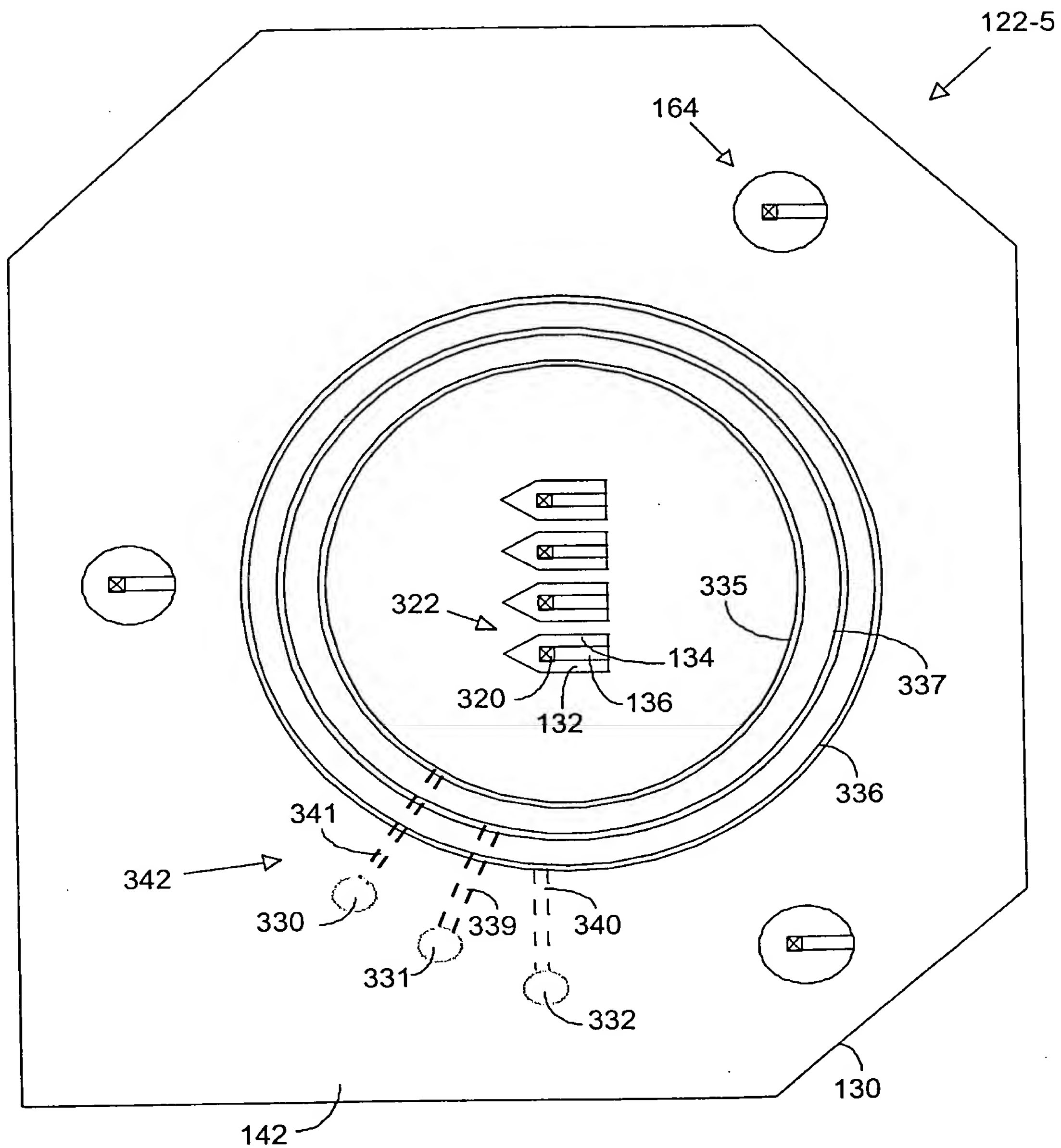


Figure 27

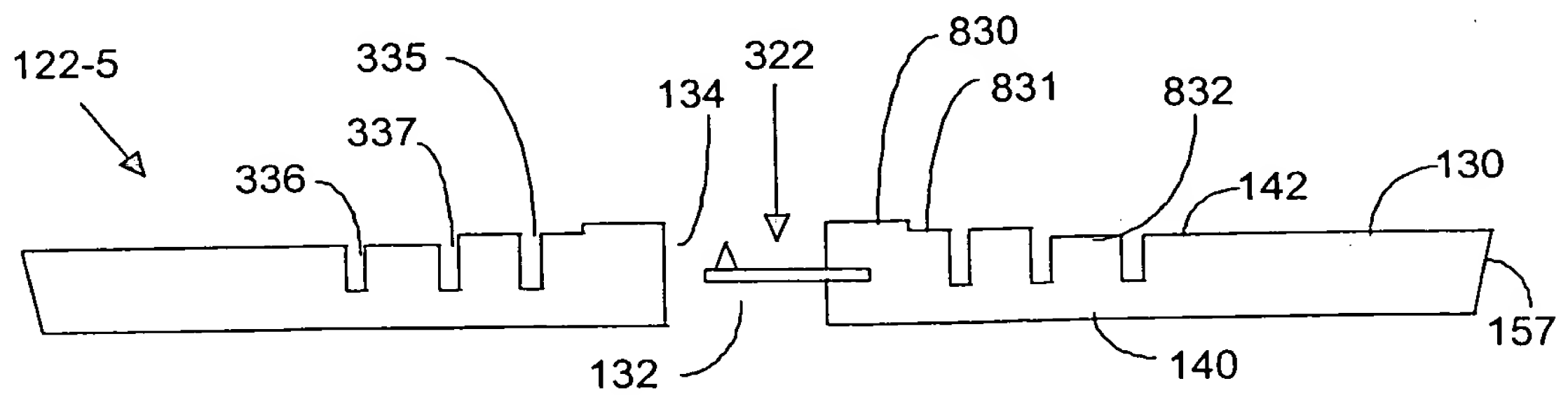


Figure 85